THIS WEEK'S National Petroleum NEWS

Index to Coming Meetings

Northwest Petroleum Association, Androy Hotel, Superior, Wis., to discuss code of ethics, Sept. 9.

Independent Oil Men's Association of New England: Providence, R. I., Sept. 11; Worcester, Mass., Oct. 9.

American Petroleum Institute division of development and production engineering, Texas-Louisiana-Arkansas district, Galvez Hotel, Galveston, Tex., Sept. 5, 6.

American Chemical Society, Petroleum Division, Minneapolis, Minn., beginning Sept. 9.

National Petroleum Association, Hotel Traymore, Atlantic City, N. J., Sept. 18, 19, 20.

Ohio Petroleum Marketers Association, Deshler-Wallick Hotel, Columbus, O., Sept. 18, 19.

Rocky Mountain Oil & Gas Association, Montana division, Calgary, Alta., Sept. 18, 19, 20.

National Safety Council, Petroleum Section, Congress Hotel, Chicago, Sept. 30, to Oct. 5.

National Association of Credit Men, Refinery Credit Managers to meet, Mayo Hotel, Tulsa, Oct. 3, 4.

Texas Petroleum Marketers Association, Plaza Hotel, San Antonio, Oct. 3, 4, 5.

International Petroleum Congress, Tulsa, Oct. 5.

American Petroleum Institute, Division of Development and Production Engineering, Tulsa, Oct. 7, 8. (To meet during Tulsa Expo.)

Pennsylvania Independent Oil Men's Association, William Penn Hotel, Pittsburgh, Pa., Oct. 15, 16.

Big Four State Jobbers (Kansas, Missouri, Nebraska and Iowa), Kansas City, Mo., Oct. 15, 16, 17.

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E. H. MOORE, president of the Independent Oil & Gas Co., organized the company at Okmulgee in 1919. He was elected president at the time of the organization and has held the position continuously since then.

Mr. Moore was a lawyer at Okmulgee for 18 years before organizing the Independent. He came to the then village from Missouri in 1901.

Under Mr. Moore's leadership the Independent has grown from a small producing organization to its present important position as one of the large Mid-Continent producers with an extensive pipe line system, two refineries and a large chain of wholesale and retail distributing stations in the central states.

In the Mid-Continent Mr. Moore is much in demand as a toastmaster at banquets of producers. His dry humor has given him a reputation as a presider. He is a valuable customer of the Tulsa Baseball Amusement Co., which owns the Tulsa Oilers.

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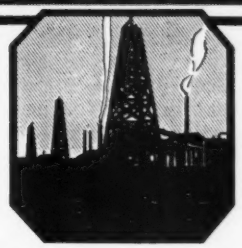

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Vol. 21 CLEVELAND, August 21 No. 34

California Producers Consider Means Of Observing New Gas Law

By Jack N. Westsmith
N. P. N. STAFF WRITER

LOS ANGELES, Aug. 17

WITH the effective date of the new California gas conservation law only two weeks away interest among producers in the state centers on how the law will be made effective, what steps will be made to test its constitutionality and what effect the operation of the law will have if it is found constitutional.

Producing executives are busily at work seeking to devise methods for observing the law with as little loss and friction as possible. Plans being considered involve the distribution of gas outlets among producers. Other plans involve unit management of gas production from a given field.

General opinion in the state is that the law may have the following effects if it is found to be constitutional and is enforced.

1. A reduction in the total crude output of the state by approximately 200,000 barrels per day.
2. An increase in the use of natural gas for industrial purposes in competition with oil.
3. A readjustment of crude oil prices.
4. A decrease in the output of high gravity oil fields with a maintenance of the output of low gravity fields.
5. An increase in drilling activity in certain fields and in wildcat territory.

Whenever and wherever two or three operators are gathered together these days, you may be sure they are discussing the probable effects of the law and questioning just how its constitutionality will be determined.

For years operators have been meeting and passing resolutions in favor of conservation; recently they have been loud in their vocal support of voluntary cooperation as a remedy, but when the time for action arrived they were not all present.

Voluntary agreements, lauded to the skies in theory, did not work out in practice. Too many operators—some large and some small—were so deeply concerned with their own financial prosperity that they were unable to give the curtailment program their thoroughgoing support. These executives told the truth when they said that their stockholders were looking for profits, and not for excuses why dividends were passed.

The difficulty experienced at Kettleman Hills is a good illustration of the obstacles in the way of agreement among strong business competitors when large financial profits are involved. Agreement has been reached, it is true, at Kettleman Hills, but how?

The government, through its power as a landlord, has stepped in and has issued an ultimatum. The velvet-covered, mailed fist came down with a resounding whack on the conference table before some half a dozen companies could be brought into agreement.

A very different situation faces the state in attempting to enforce adjustment on a state-wide scale. At Kettleman Hills, the operators were mostly major companies, whereas in the state as a whole the smaller companies form the great majority.

With good reason, state officials and oil-company executives do not want to stir up animosities. The executives want to find some way that will enable them to pay dividends to their stockholders and, at the same time, satisfy the desires, we might say the demands, of the small operators. Companies that have shown good business judgment by making contracts for the disposal of their surplus gas find themselves in the difficult position of being asked to share their contracts with companies that have surplus gas, but no available outlet for it.

Although great secrecy is being observed as to the actual proposals and the probable terms that will be offered to the small producers, no secret is made of the fact that conferences are being held daily, almost hourly, behind closed doors between company executives.

General understanding is that several tentative plans have been outlined. Under one of these plans companies that have large contracts with public utility companies, or that have large compressor units, or that have other means of absorbing natural gas will take the excess gas of producers that have no outlet.

A small monetary return would be obtained by these producers through

the sale of their natural gas and natural gasoline, but the primary recompense would be the ability of these operators to produce oil.

A variant of this proposal provides for what amounts to unit operation of the fields. Under this plan a pool would be formed of both the gas output of the field and the contracts for gas held by individual companies with public utilities. Companies holding contracts for the disposal of their surplus gas are placed on the horns of a dilemma by this proposal. If they agree to pool their contracts, they lose the benefits of their business acumen and their good fortune. If they refuse to pool their contracts, they risk court proceedings that might declare the conservation law unconstitutional.

Companies that totally ignored the orders of Umpire F. C. van Deinse are now making preparations to comply with the new law. That is, their budgets provide for expenditures that may be required if the law is enforceable. One major company is said to have set apart $150,000 for this work during the third quarter of 1929.

A wide diversity of opinion exists as to the effects of the new law. It is hailed by some as the greatest forward step in the history of oil development in California, whereas others question whether it will ever be carried into effective operation. Undoubtedly, the great majority of California operators are favorable to it and are willing to support it, even at some personal sacrifice. They are broad minded enough and public spirited enough to feel that they will gain more through the general prosperity of the industry than through some slight temporary individual gain.

The effect of the law will be most pronounced in the flush fields, where little regard has been paid to gas-oil ratios, and where enormous quantities of gas have been blown into the air.

Even though a large amount of the gas produced in the flush fields of Santa Fe Springs, Long Beach, Seal Beach, Ventura Avenue, and Elwood will be absorbed by commercial sales, repressuring and plant uses there will still exist surplus gas that constitutes waste gas.

This surplus can be offset, at the present time at least, only by beaning in wells that are producing gas slightly in excess of an average oil to gas ratio, and by killing wells that have an abnormal oil to gas ratio. State officials, with the help of data furnished them by operators, are endeavoring to fix an equitable oil to gas ratio for wells in the state based upon their position on the structure and their producing horizons. A copy of the data sheet sent to all operators accompanies this article.

Part of the plans being considered deal with the repressuring of shallow zones of the Santa Fe Springs and Long Beach fields, and of the depleted sands of nearby Los Angeles Basin fields. Repressuring has been under way in the Meyer and Bell zones at Santa Fe Springs and in

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FORM 110 A (LIGHT) 68290 6 29 50M
CALIFORNIA STATE PRINTING OFFICE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Monthly Gas Production and Disposition Report

MR. .....Cal. .....19.....
Deputy State Oil and Gas Supervisor
.....Cal.

DEAR SIR:

In compliance with Section 20, Chapter 718, Statutes of 1915, as amended, we herewith submit our report of the amount of gas produced by each of our wells in the..... Field .....County, California, for the month of.....19.....

Section	Township	Range	Well No.	Total Formation Gas Produced (Thousands of Cubic Feet)	Gas-Oil Ratio Cubic Feet (Formation Gas Per Barrel Clean Oil)	Casing Pressure	Tubing Pressure	Method of Operating Well (F, P or GL)	Number of Days Well Produced	REMARKS
Lease or Group Total										

Total amount of gas used.....Mcf. Total amount of gas blown to air.....Mcf.
.....Mcf. Total amount of gas delivered to.....Address.....
.....Mcf. Total amount of gas received from.....Address.....
Total amount of gas stored (net amount held in formation).....Mcf.

.....
(Name of Company or Operator)

By.....

(This report must be made in duplicate, not later than the 10th of the following month, and delivered to the Deputy Supervisor in charge of the district where the property is located)

Report form to be used by California producers

such fields as Dominguez, Brea, Coyote, and Huntington Beach for some time and it is expected that this method of disposing of excess gas will be adopted to even a greater extent.

There is one danger to curtailment plans, that exists from excessive storing of natural gas in zones that have been drained of their natural supply of gas but not entirely of oil. That is, as the gas pressure is built up in the sands, wells that have ceased to flow because of a lack of kick may be made to flow again by a slight agitation. This has been done in some Meyer and Bell wells of the Santa Fe Springs field and some wells have had their flow increased, by repressuring.

Daily average production in June of natural gas in the state and in critical flush fields with the important uses, are given in the accompanying table.

Unit operation of a field brings its own problems. The question arises as to who will be responsible for handling the surplus gas and who will select the property that is to be repressured? Companies that have had long experience in repressuring work and that have determined to their own satisfaction the best procedure to be followed, are not inclined to yield control to a committee, upon which they would have only a minority voice.

Santa Fe Springs, with its numerous partially depleted zones, is an ideal field for repressuring work, especially as it affords an outlet for surplus gas, without the extra cost of transporting it to other fields. Eight billion cubic feet of gas escaped into the air during the month of June in this field, and this quantity may be exceeded during the period of completions in the O'Connell and Clarke zones.

Regardless of the effect of the new law, production at Santa Fe Springs is expected to be definitely downward once the flush production caused by completions in the O'Connell and Clarke zones is over. Other critical Los Angeles Basin fields are expected to have natural declines that would make the enforcement of the gas conservation law unnecessary within the next six months.

Many petroleum engineers predict that the present overproduction is not the last that the state will experience. Future emergencies, such as the discovery of the Kettleman Hills, will find the gas law ready to act as a safety valve against any threatened overproduction.

Lack of shallow zones at Elwood and other similar fields, limits the application of the repressuring plan, and brings up another problem of gas disposal. According to estimates of engineers, daily production at Elwood will probably be reduced to less than 15,000 barrels, by rigid enforcement of the new law, unless special concessions are granted to operators in this field.

Production and Utilization of Gas in California
June, 1929
State Totals

Production	1,500,000,000 cubic feet
Plant fuel, field use and shrinkage	437,000,000 cubic feet
Commercial sales	275,000,000 cubic feet
Recirculated	121,000,000 cubic feet
Repressuring	50,000,000 cubic feet
Approximate daily waste	600,000,000 cubic feet

Santa Fe Springs

Production	454,000,000 cubic feet
Plant fuel, field use, shrinkage	170,000,000 cubic feet
Commercial sales	37,000,000 cubic feet
Repressuring	17,000,000 cubic feet
Recirculating	17,000,000 cubic feet
Waste	213,000,000 cubic feet

Long Beach

Production	370,000,000 cubic feet
Plant fuel, field use, shrinkage	117,000,000 cubic feet
Commercial sales	78,000,000 cubic feet
Recirculating	25,000,000 cubic feet
Repressuring	1,000,000 cubic feet
Waste	155,000,000 cubic feet

Ventura Avenue

Production	248,000,000 cubic feet
Plant fuel, field use, shrinkage	44,000,000 cubic feet
Commercial sales	90,000,000 cubic feet
Recirculating	12,000,000 cubic feet
Repressuring	
Waste	110,000,000 cubic feet

Seal Beach

Production	75,000,000 cubic feet
Plant fuel, field use, shrinkage	19,000,000 cubic feet
Commercial sales	17,000,000 cubic feet
Recirculating	12,000,000 cubic feet
Repressuring	3,000,000 cubic feet
Waste	24,000,000 cubic feet

Average Oil to Gas Ratios for These Fields for the Month of June Were as Follows:

Santa Fe Springs	1,910 cu. ft. of gas per bbl. of net oil
Long Beach	2,200 cu. ft. of gas per bbl. of net oil
Ventura Avenue	4,600 cu. ft. of gas per bbl. of net oil
Elwood Terrace	1,200 cu. ft. of gas per bbl. of net oil
Kettleman Hills	23,000 cu. ft. of gas per bbl. of net oil

Although the amount of excess gas produced in the Ventura Avenue and Elwood fields is not as great as that produced in some Los Angeles Basin fields, greater difficulty is expected to be found in bringing about a suitable and equitable plan in the Coastal fields because of the high pressures encountered and the lack of outlet for the excess gas.

Barnsdall-Rio Grande interests are reported to have killed a well in the Elwood field because of its high oil to gas ratio. They are said to be making preparations to bean in their other ten producers in this area to eliminate the overproduction of gas. Repressuring cannot be increased to any great extent at Ventura Avenue because the sands have never been allowed to become depleted.

That state officials are preparing for litigation is indicated by the appointment of James S. Bennet as legal advisor to Fred G. Stevenot, director of natural resources.

Under the new law, the state oil and gas supervisor is given specific authority to take possession of all wells that are operated with excessive gas-oil ratios. In this connection, undoubtedly many serious legal questions will arise as to the right of the supervisor to take this drastic action when the operator can find no market for his gas, and when his neighbors with an outlet for their gas, are permitted to operate off-set wells that drain his land.

Legal activity is not all on the side of the state officials. Many of the so-called Independent companies that are rapidly approaching major rank are investigating the constitutionality of the law.

Although the framers of the act were very careful in the wording adopted and believed that they had overcome the danger of attack on the constitutionality of the law by the use of the term "unreasonable waste," one possible ground for attack on the law will be the contention that the law delegates legislative authority to administrative officers. The law does not prohibit all waste, but only unnecessary waste, and, therefore, imposes on the administrative officer the task of determining exactly what waste is actually unnecessary.

Regardless of the question of constitutionality, the benefits of the law will necessarily be delayed for several weeks after the law becomes effective. The procedure called for in the act appears to provide for investigation and appeals that must involve considerable delay in the rendering of a final judgment, and many lawyers are of the opinion that the constitutionality of the law may be in question for at least several months.

Educational measures are being taken by state officials in an effort to lessen the friction incidental to the application of the law. The terms of the law are being defined and explained so that operators will not unwittingly break it.

Complete production reports on the form shown have been prepared by the state oil and gas department and have been circulated among operators in California fields. Operators have cooperated by furnishing data obtained in those fields in which voluntary conservation of gas has been practiced for a number of years.

Data gathered and circulated cover casing pressures, fluid levels (submergence), and penetration of the oil sand. An attempt is made to include all information that has an important bearing on the enforcement of the new law.

Fred G. Stevenot, state director of natural resources, is optimistic about the operation of the law. He does not anticipate that any legal action on the part of the department will be necessary. For several months now he has been working in close cooperation with executives of various oil companies and organizations. He states that he has found a very friendly attitude on the part of oil men toward the act, and a readiness to cooperate in its enforcement.

This willingness of oil operators to work together among themselves and with state officials is considered the most favorable element in present conditions. It is generally recognized that the success or failure of the law rests largely on the support given it by the major companies. The opinion is freely expressed that successful operation of the law requires that the major companies find some way of satisfying their own conflicting interests and, at the same time, take into account the legitimate demands of the small operators.

Joseph C. McCue Is Dead After Long Illness

(By Telegraph)

HOUSTON, Aug. 19.—Joseph C. McCue, assistant manager of the producing department of The Texas Co. at Houston, died Aug. 19 at St. Joseph's Hospital after a 10 months' illness. He was 60 years old and a pioneer of the southwestern petroleum industry. Before his removal to Houston about nine years ago as assistant manager Mr. McCue was Shreveport division manager of The Texas Co. Before that he represented The Busch Everett Interests of St. Louis in North Louisiana.

Mr. McCue was a native of Pennsylvania coming to the southwest soon after the original Spindletop development.

Sun Buys Interest in Northlite

BRAINTREE, Mass., Aug. 19.—The Sun Oil Co. has purchased the interest of Gustav A. Bergfors in the Northlite Oil Co. here. Mr. Bergfors has been treasurer and general manager of the company. He will retire from the organization as a result of the sale.

Okla. City Wildcat Finds Simpson

(By Telegraph)

TULSA, Aug. 20.—Another good producer in the siliceous lime and the finding of what is believed to be the Simpson series, in which the Wilcox sand occurs, in a well drilling about nine miles northeast of the heart of the pool, were week end features in the Oklahoma City area.

Indian Territory Illuminating Oil Co.-Foster Petroleum Corp. No. 1 Alice Bodine in the NE SE of 24-11N-3W started off at the rate of 3500 barrels per day at a total depth in the lime of 6536. The well does not prove any outside acreage. It swells the number of producing wells to 12 and the field's production to 39,041 barrels.

The well which got the Simpson is the Mid-Kansas Oil & Gas Co. No. 1 Trosper in the NE NW of 19-12N-1W. The well has been logging some 1200 feet lower structurally than those in the Oklahoma City field. It picked up the formation at 6650.

Although dry at present and not regarded as a possible producer, the test is considered of extreme importance geologically as it throws considerable light on the structural dip in this direction from the pool.

NORFOLK, Va., Aug. 16.—Virginia Home Oil Co., Inc., is the name of a recently organized oil marketer here. James Edward Askew is president.

U. S. Gasoline Stocks Cut Only 142,000 Barrels

By Telegraph

NEW YORK, Aug. 20

STOCKS of gasoline at refineries reporting to the American Petroleum Institute were reduced only 142,000 barrels in the week ended Aug. 17. Total stocks on that date were 33,429,000 barrels. For the week plants with 93 per cent of the total capacity of the country reported to the Institute.

Crude runs at reporting plants were increased 62,700 barrels daily average. Runs for the week were 2,676,000 barrels per day as compared with 2,613,900 barrels the previous week. A large part of the increase in runs was in California. In that state stocks of gasoline increased 106,000 barrels during the week from 11,834,000 barrels to 11,940,000 barrels.

Fuel oil stocks increased 917,000 barrels during the week to 142,155,000 barrels. Stocks for the week ended Aug. 10 were revised as shown in the accompanying table. The revision eliminated stocks of cracking still charging stock so that the reports will correspond with those gathered by the U. S. Bureau of Mines.

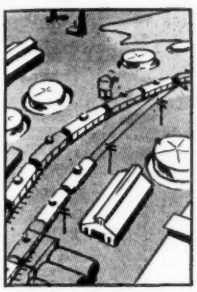
American Petroleum Institute report of refinery operations in the United States for the week ended Aug. 17, compared with the week ended Aug. 10

District	Per Cent of Capacity Reporting	Crude Run to Stills Wk. Ended 8-17 (Barrels)	Crude Run to Stills Wk. Ended 8-10 (Barrels)	Per Cent of Reporting Capacity Operated Wk. Ended 8-17	Per Cent of Reporting Capacity Operated Wk. Ended 8-10	Stocks Reported in Thousands of Barrels: Gasoline Stocks Aug. 17	Gasoline Stocks Aug. 10	Gas & Fuel Oil Stocks Aug. 17	Gas & Fuel Oil Stocks Aug. 10
East Coast	100.0	3,294,000	3,569,100	83.0	89.9	4,685	4,843	7,967	8,303*
Appalachian	84.2	579,800	562,400	84.3	80.5	962	930	992	1,040*
Ind.-Ill.-Ky.	95.7	2,159,300	2,142,000	98.0	94.3	5,613	5,767	3,732	3,807*
Okla.-Kan.-Mo.	79.3	1,872,300	1,760,900	79.6	84.0	2,812	2,914	4,760	4,637*
Texas	87.6	3,729,300	3,665,800	89.7	88.8	4,116	4,045	12,256	12,458*
La.-Ark.	96.9	1,356,400	1,201,600	79.6	73.5	1,822	1,648	5,498	5,214
Rocky Mountain	93.4	491,900	455,600	56.7	52.5	1,479	1,590	631	682
California	98.7	5,260,100	4,940,100	90.6	85.1	11,940	11,834	106,319	105,097
Total U. S.	93.0	18,743,100	18,297,500	86.2	85.2	33,429	33,571	142,155	141,238*
Texas (Gulf Coast)	98.2	2,825,400	2,828,400	91.5	90.6	3,446	3,397	9,187	9,590*
La. (Gulf Coast)	100.0	942,300	892,400	86.8	82.3	1,532	1,390	4,558	4,368

*Revised

Two Patent Batteries Turn Their Guns On Winkler-Koch Engineering Co.

By Paul Truesdell
N. P. N. STAFF WRITER



CLEVELAND, Aug. 14

THE Winkler-Koch Engineering Co. of Wichita, Kan., well known to refiners, particularly in the Mid-Continent as a designer and builder of refinery equipment, was sued for damages by the Gasoline Products Co., owner of the Cross cracking process on Aug. 12. The suit alleges the defendant has infringed 11 claims in two patents which were issued to John C. Black and later were acquired by the Gasoline Products Co.

The suit was filed in the United States district court for the district of Kansas, second division, in Wichita. The Skelly Oil Co. is a co-defendant.

Filing of this suit brings the Winkler-Koch organization under fire from two directions on charges of patent infringement. Universal Oil Products Co. (Dubbs) on March 11, this year, filed two suits against the engineering company in the United States district court in Wilmington, Del., charging infringement of six patents.

The White Eagle Oil & Refining Co., Kansas City, was the co-defendant in one suit and Root Refining Co., El Dorado, Ark., in the other.

The patents claimed in the latest suit to be infringed are No. 1,426,813, applied for Dec. 12, 1919 and issued Aug. 22, 1922, and No. 1,456,419, applied for June 20, 1922, and issued May 22, 1923.

The particular claims alleged to be infringed are 2, 3, 4, 6, 7, 8, 9, 10, 12 and 14 of the first named patent and Claim 16 of Patent No. 1,456,419.

The allegation against the Winkler-Koch Engineering Co. is thus stated in the plaintiff's petition:

"* * * Winkler-Koch Engineering Co., a Kansas corporation, being fully aware of the rights of the plaintiff under the aforementioned patents and inventions, without license or permission and in violation and infringement of the plaintiff's rights under said patents * * * and to its own benefit and to the injury of the plaintiff * * * did unlawfully make, sell and construct at Eldorado, Kan., and elsewhere in the United States, apparatus expressly designed for the violation and infringement of plaintiff's rights as defined by the claims of the patents aforesaid, and did unlawfully connive, contrive and conspire with the * * * Skelly Oil Co. to jointly and severally violate and infringe upon plaintiff's rights * * *"

The Skelly company is similarly charged with infringement at its Eldorado refinery.

The prayer of the petition is that defendants be enjoined from further alleged infringement, that an accounting of the profits of the defendants be made and that damages three times the sum of such profits be awarded to the plaintiff.

The claims alleged to be infringed follow:

Patent No. 1,426,813.

Claim 2—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons to a temperature sufficient to crack them and under a pressure of not less than 35 atmospheres to prevent vaporization thereof, then reducing the rate of flow of the hydrocarbons without any material reduction in pressure and temperature to permit of further reduction and polymerization and then reducing the temperature of the cracked hydrocarbons while under this pressure to a degree sufficient to prevent vaporization of the low boiling point hydrocarbons when they are discharged at atmospheric pressure.

Claim 3—In the process for the production of low boiling point hydrocarbons, the combination of steps comprising heating the hydrocarbons to a temperature sufficient to crack them and under a pressure of not less than 35 atmospheres to prevent vaporization thereof, and then reducing the rate of flow of the hydrocarbons without any material reduction in pressure and temperature to permit of further reaction and polymerization.

Claim 4—A process for cracking hydrocarbons comprising forcing the hydrocarbons through heating tubes at a temperature sufficient to crack them and at a pressure of not less than 35 atmospheres to prevent the vaporization thereof, decreasing the rate of flow of the hydrocarbons after leaving the heating tubes and maintaining the hydrocarbons at a cracking temperature and under pressure sufficient to prevent vaporization thereof and finally discharging the hydrocarbons from the apparatus.

Claim 5—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons in a single passage to a temperature sufficient to crack them and under pressure of not less than 35 atmospheres to prevent vaporization thereof, then reducing their rate of flow and then reducing the pressure and vaporizing the hydrocarbons separating fractions heavier than gasoline and returning said fractions to the cracking apparatus.

Claim 7—A process of cracking hydrocarbons which consists in passing the hydrocarbons through heating tubes, subjecting them to a temperature sufficient to crack them and under a pressure of not less than 35 atmospheres to prevent the hydrocarbons from vaporizing. Passing the hydrocarbons along at a reduced rate of flow and maintaining the cracking temperature, also maintaining the pressure sufficiently high to prevent the hydrocarbons from vaporizing and then cooling the hydrocarbons while under said pressure to a degree sufficient to prevent vaporization when they are discharged at atmospheric pressure.

Claim 8—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons to a temperature sufficient to crack them; by passing them through a heating zone then retarding their rate of flow and maintaining them during a prolonged period of time at a cracking temperature and under a pressure of not less than 35 atmospheres to prevent vaporization thereof, and then reducing the temperature of the cracked hydrocarbons while under this pressure to a degree sufficient to prevent vaporization of the low boiling point hydrocarbons when they are discharged at atmospheric pressure.

Claim 9—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons to a temperature sufficient to crack them and maintaining them at a cracking temperature over a prolonged period of time and under a pressure of not

less than 35 atmospheres to prevent the vaporization thereof, then reducing the temperature of the cracked hydrocarbons while under said pressure, then reducing the pressure sufficiently to permit the lower boiling point hydrocarbons to vaporize and then stepping down the temperature of the vaporized hydrocarbons to liquefy the lower boiling point hydrocarbons.

Claim 10—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons to a temperature sufficient to crack them reducing their rate of flow and maintaining them at a cracking temperature over a prolonged period of time and under a pressure of not less than 35 atmospheres to prevent vaporization thereof, then reducing the pressure sufficiently to permit the lower boiling point hydrocarbons to vaporize and then stepping down the temperature of the vaporized hydrocarbons to liquefy the lower boiling point hydrocarbons.

Claim 12—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating the hydrocarbons in a single passage through a furnace to a temperature sufficient to crack them reducing the rate of flow and maintaining them at a cracking temperature for a prolonged period of time and under a pressure of not less than 35 atmospheres to prevent vaporization thereof, and reducing the pressure sufficiently to permit the desired hydrocarbons to vaporize.

Claim 14—In the process for the production of low boiling point hydrocarbons, the combination of steps consisting in heating in a single passage through a furnace the hydrocarbons to a temperature sufficient to crack them and under pressure of not less than 35 atmospheres to prevent vaporization thereof, then reducing the rate of flow of the cracked hydrocarbons while under said pressure, then reducing the temperature of the hydrocarbons, then reducing the pressure sufficiently to permit the lower boiling point hydrocarbons to vaporize and then condensing them.

Patent No. 1,456,419.

Claim 16 of this patent is not at hand but an abstract of the patent follows:

"In a tube process for cracking hydrocarbons in the liquid phase the heating coils are separated into sections provided with separate burners to obtain better regulation of temperature at the desired portion of cracking operation whereby a high yield of light hydrocarbons is said to result. Pyrometers indicate the temperature in each section."

The earlier suits filed by the Dubbs interests alleged Winkler-Koch Engineering Co. and the White Eagle Oil & Refining Co. and Root Refining Co. had infringed six patents these being No. 1,378,307; No. 1,484,445; No. 1,534,927; No. 1,537,593; No. 1,602,990 and No. 1,686,654.

The charges stated by the Universal Oil Products Co. in its suit against Winkler-Koch and Root Refining Co. as follows:

"* * * and further on information and belief, plaintiff alleges that the defendant Winkler-Koch Engineering Co. has conspired with the defendant Root Refining Co. to infringe said letters patent and as a part of such conspiracy has designed and made drawings of pipe stills, has furnished other plans and specifications upon which such stills are built, has furnished the parts for such stills, has erected such stills for its confederate Root Refining Co. and has otherwise induced its said confederate to infringe the patents of the plaintiff. * * *"

The plaintiff asks that the defendants be ordered to account for the profits realized from the alleged infringement and three-fold damages be assessed against them and that they be enjoined from further alleged infringement. The allegations made in the suit in which the White Eagle is a defendant are similar to those quoted.

I. C. C. to Consider Financial Condition of Railroads

WASHINGTON, Aug. 19

THE Interstate Commerce Commission has reopened Docket No. 17,000 Part 4-A, to permit the Sinclair Refining Co. to present evidence as to the financial needs of the railroads for higher freight rates. The evidence which will be submitted was presented by H. W. Robertson, Sinclair witness, at a hearing at Tulsa last May but ruled out by the examiner. Appeal was made from the ruling.

Hearing of the evidence and rebuttal by the railroads will be at Washington beginning on Sept. 4. No other evidence may be submitted at the hearing.

The achievement of this technical victory by Sinclair has put the oil industry in a decidedly better position before the commission in the administration of the Hoch-Smith resolution which directed the freight rate regulating body to readjust freight rates in such way as to give the products of agriculture including livestock the lowest possible lawful freight rates.

Inasmuch as another part of the law says that the regulating body shall initiate and establish rates high enough to give the railroads a fair return on the value of their property, the Hoch-Smith resolution means that when rates on agricultural products are put down those on other products must be put up, because, until recently, the railroads were not earning near 5.75 per cent, the percentage that the regulating body says would be a fair return.

Twelve general investigations under the Hoch-Smith resolution are under way, two of them having to do with rates on petroleum and its products, one in the southwest and another covering a large part of the territory east of the Mississippi.

The Sinclair victory will enable all the industries which face the possibility of increases on the theory that agriculture is depressed and the railroads are in need of more money to thrust the Sinclair figures, prepared by a statistician representing the commissions of western states, under the eyes of the federal commissioners and base their arguments on them that the railroads are not entitled to more money. The oil and other industries could collect such figures themselves but that would take time and cause delay.

Delay would be expensive because attached to each of the Hoch-Smith parts of the general investigation are hundreds of complaints by oil companies and others alleging that the rates that were exacted three, four or even five years ago, were too high. There has already been much complaint about the delay that has resulted from attaching those formal suits to the general investigations, the complainants contending that they were entitled to decisions on them without waiting for a determination that agriculture was or was not entitled to relief at the expense of other industries.

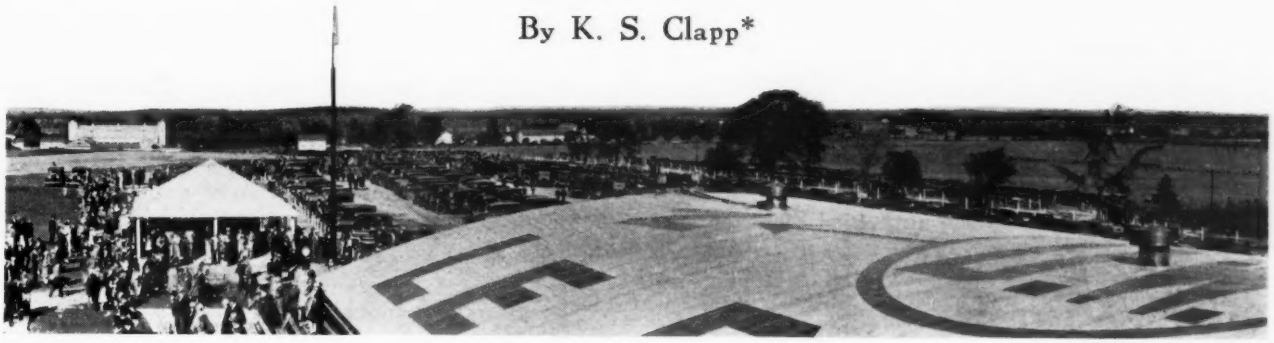
The Sinclair company, by reason of this victory will now be able to argue its side of the general petroleum investigations on the basis of a denial that the railroads are in need of more money.

Right from the start the railroads have contended that there is now no general depression in agriculture. They have produced figures tending to show that, regardless of what the fact may have been in 1925 when the Hoch-Smith resolution was adopted, agriculture is in no worse case now than many other industries. The western state commissions, by means of the figures the Sinclair lawyer has now made available for the whole oil industry and other industries as well, claim that the railroads are not now so poor in pocket that they are entitled to reach into the pockets of the oil and other industries for relief.

An Opportunity—

Combination Super Service at Airports

By K. S. Clapp*



Section of Le Roy, N. Y., hangar and automobile parking ground. This port is devoted exclusively to training and special transit ships

CLEVELAND

THIS subject may sound like "trick language" as super service has been discussed so extensively during recent months and its applications have been so varied that the public, as well as the oil industry, are asking what it all means.

Super, being a superlative or descriptive adjective, would infer a "better type of service," but I don't believe many motorists would condemn either the major oil companies or the smaller ones for a lack of attention in supplying their demand for gasoline, oils and crank case service during the past five years. Statistics have proven, during this period, that not many motorists would have to walk more than a block for gasoline.

Lately this much abused word "super" has been side-tracked or pigeon-holed for a new expression known as "one-stop service." This new terminology still doesn't seem to convey to the motoring public just what we're all trying to do for them. Some publications and some individuals feel that these "one-stop service stations" should perform all sorts of service from relining brakes to a refinishing or top overhaul job. After all is said and done, it's the old story of trying to tell the public what to have done at the *wrong* place and *wrong* time. Motorists' time is an element which most service station operators have ignored entirely in their zeal to surpass the extravaganza of their competitors.

There was never a period in all history when every minute seems to count for more than it does today. We're all hurrying here, and there and everywhere. We don't have time to really accomplish the things we set out to do when we leave home in the mornings, but still some service station operators are spending fabulous sums for site, buildings and equipment along the congested and heavy traffic streets in order to detain the hurried business man for 15 to 30 minutes on super service.

If I were an operator of chain service stations I would consider the "time element" of the motorists who passed by my various stations, before I would consider how many different types of service I would render so as to show satisfactory returns on my investments. It is possible for one to conceive a "super" or "one-stop" station supplying nothing but gasoline service. At such a station the attendants would be standing on the pump island with "hose in hand" and another attendant "standing by," to remove gasoline tank cap, fill radiator, make change, etc.

**K. S. Clapp, director of sales for the U. S. Air Compressor Co., Cleveland, is an experienced and enthusiastic aviator. During the war he was commander of "C" Flight, 27th Aero Squadron, First Pursuit Group, A. E. F. He spent about nine months in combat service over the lines and holds as a result the D. S. C. and Croix de Guerre with palm*

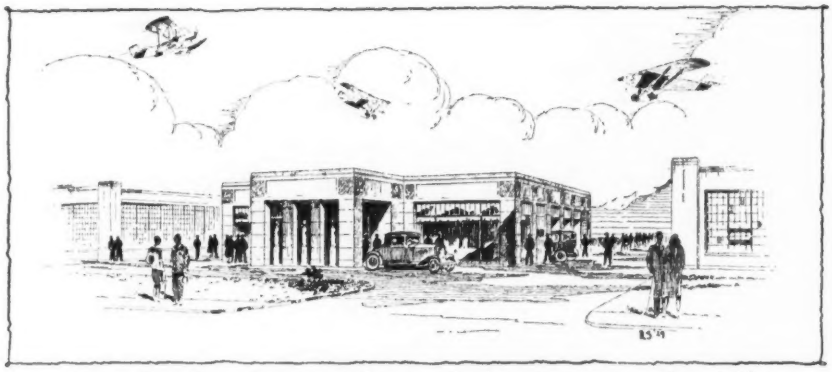
Other stations, located in residential sections could render the hundred and one odd jobs which motorists need at fixed intervals and have the opportunity at the proper time.

The average motorist will pick out an opportunity for visiting a one-stop or super service station when he has a little leisure. Or he will leave his car at the station and pick it up at a later time, utilizing the period when the car is being serviced for business or pleasure.

With this thought in mind it should behoove the builder of expensive super stations to pick out a location to suit the motorist, either in a populous residential district or in some other area where cars are parked for a considerable period while the owner is busy.

While we are philosophizing on what is going to happen in the industry let us not forget that too many, too elaborate super service stations in the congested areas of our cities are going to arouse the down town garages and parking spaces to new life and new merchandising as they are going to be bidding for this extra expenditure of the motorists.

Many things have happened since the curb pumps and we're surely in a big transition period right now. One doesn't have to consult many engineering and financial authorities to learn that Diesel engines will be under the hoods of our pleasure cars,



Front elevation of suggested type of airport super service station

busses and trucks in the very near future. This decided change in engine design and practice will effect the service departments of repair shops, car dealers and service stations in many ways.

SPEAKING of things that are going to happen let us get down to "brass tacks" and see what is happening right now and note carefully how far we are missing the major points of wholesome and profitable activity. I now speak of AVIATION. Yes, you want to get in it some way, but you don't know how. You feel like it is here to stay but you are still a little skeptical, and I don't blame you a bit for "being on the fence."

Like all new and basic industries, there are two types of activities—"wild cat" and "fundamental." The "wild cat" ventures are the ones which give you the negative thoughts about the future of aviation.

Most of them begin like this—John Jones is a pilot, either world-war trained or otherwise, gets a few dollars and buys a second hand kite with a motor in it—then he goes "hedge hopping" to make a living. Jones generally covers the smaller towns or cities and puts on stunts at the county fairs or carnivals.

He's a nice appearing chap with a good personality and the home folks take him into their society as a gallant and brave lad.

Soon he meets the banker's daughter, dines at his residence and the next morning the local paper announces that President Smith of the First National and Mr. Jones have organized the Podunk Aviation Corp. What for, nobody knows, except for thrills and financial losses.

The company begins operations with a new personnel, obtains buildings, machinery and supplies galore. Remember now, there's no aviation brains in this business, but America's big production schemes comes into the picture so the company buys carloads of fabric, spruce and seamless tubing for aeroplane production without the operators having either a hind sight or foresight for aviation.

After the elapse of a year or so, the fabric is rotten, the spruce is worm eaten and warped and the office boys have sawed up the seamless tubing to the wrong dimensions. Results—a defunct company and an aviation eye sore in that community. If this man Jones had been known as an aeroplane chauffeur in place of pilot, it never would have happened.

Contrasted with this "wild-cat aviation" is the real and healthy development by large capitalists, keen-minded aeronautical engineers and business executives, proceeding down a fixed course which is as stable and certain as our system of railroads, steam ships, busses and automotive transportation.

I do not believe that aviation will be nearly as universal as the automobile for individual or private transportation, at least not in this generation. Aeroplanes and automobiles are auxiliaries to each other and not competitive. But remember, we are in the "age of travel" and public aeroplanes for long flights or short hops are going to be every bit as popular and more desirable than our crack pullman trains and deluxe busses. And Oh! you oil men,—how these planes will burn up the gas or distillate and oil.

ARE you preparing for this new consumption of your products in an "air minded" way? There seems to be too much conversation and not enough concrete action on the part of all of us who are only closely allied and not active in aviation pursuits.

It won't be long before the big scramble of oil men will begin in which they will attempt to light the airports of our country with gasoline pumps similar to the fight for curb pump installations that took place several years ago.

Wouldn't it be almost a miracle if such a catastrophe could be averted and only good, sound business practices applied to this new industry. May I suggest that oil men "fall in line" with the stable and fundamental procedure of the real aeronautical brains of our nation who are attempting to eliminate the frills and burlesque of our aeronautical program.

Many millions of dollars are being invested daily in sound aviation enterprises, both manufacturing and operations. A thousand aeroplanes flying over metropolitan areas does not create the excitement today as 20 classy automobiles parked in a street. Few people know or realize the rapid development of our transport air lines unless they are frequent visitors at the airports.

Make a practice of regular inspections at your local airports, but don't be carried away with the drone of several engines over your head or go back to your office and start an expensive layout of your company's aeronautical activities. Its going to be a great business for you oil men very soon and its a thrilling game, but maintain your good business judgment, which was responsible for your successes heretofore.

The more airports which you visit, the more you will consider the flights of aeroplanes in an "air-minded" manner and it will eventually become second nature to you. This new feeling of ease will give you a true vision of the tangible activities at all airports, and which will reveal and impress you with the large number of automobiles being parked for such long periods of time.

GLANCE and then carefully study the aerial photograph of the airport shown here. This is representative of airports all over the country. Imagine how many of these parked cars need crank case service, gasoline, battery and tire repair, washing and the other super service operations! Just think of the golden opportunity to sell these motorists all of this service without the big sales resistance of "time required."

Now ask yourself if this condition is fundamental. It most certainly is as every airport is by necessity located at such distances as to demand motor car transportation to reach it and as air transportation increases, so will the presence of automobiles increase in like proportion. These photographs are daily exhibits on clear flying days. Practically every airport in United States will register 20 to 35 parked cars to one plane on the field. These automobiles at airports are parked for periods of two to six hours—a splendid opportunity to sell your services as 50 per cent of the motorist's resistence is "lack of time."

Now lets talk about combination super service! Every airport is located on a popular highway with plenty of land available for drive ways, taxying area and hangars, as well as suitable spaces for car park-

ing and a site for a combination super service station. I mean by combination, a duplex service station with the side toward the highway or street equipped for rendering all common services to automobiles and the side toward the airport designed and equipped for servicing aeroplanes.

All oil men are familiar with the type of equipment, size of buildings and driveways required for the automobile department but few are conversant with what is needed and demanded by aeronautical operators. It is well to note that aeronautical personnel greatly resents the direct application of other industries to their own activities. And they are correct in their demand for original things which have definite relations to their own pursuits.

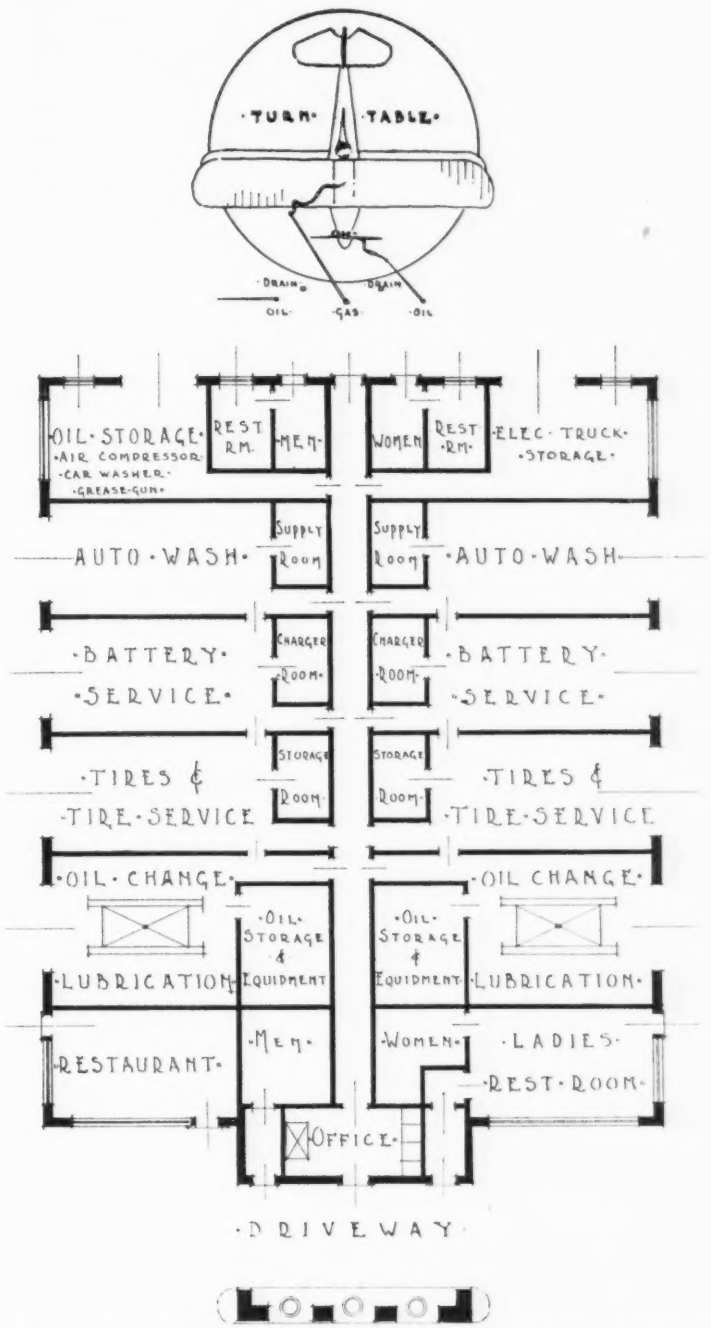
FOR instance, the customary methods of storing and dispensing gasoline and engine oils, such as used at garages and service stations, are entirely unsatisfactory and inadequate for refueling aeroplanes.

Referring to the ground plan of the suggested type of combination super service station shown here, you will note that it is a compact, moderately priced layout. The various labeled entrances on each side of the station quickly acquaint motorists with the many types of service available. The stalls on either side furnish accessible space for tire and battery service, car washing and any other special services desired by the operator.

A concrete walk through the entire length of the building gives the attendant in charge a good visibility and quick access to both the street and airport side as well as keeping close watch and supervision of the various departments.

It is advisable to equip such a station as this with two large size air compressor units as a big volume of air is needed at all times to dispense gasoline on the island. The lifts will be air operated while tire and battery service demands a good and constant supply of air to do the work thoroughly and efficiently.

The splendid services which can be rendered automobiles with such equipment and layout as recommended will unquestionably attract a considerable amount of attention to the aeroplane operators and it would be an easy matter for you oil men to obtain their support of your services in their advertising. For instance, in flying circulars and schedules, which are now becoming common place in hotels, transportation bureaus and railroad stations, a suggestion that the individual drive his car to the airport while flying to Chicago, Detroit, Cleveland or any other point in order to have it washed and greased properly, would receive a hearty welcome from the flying patrons. The care of their automobiles at airports, while on short flying trips, is a big question in the minds of the air traveling public.



Layout for combination super-service station at an airport to serve cars of visitors and planes

Of course you are now wondering what is going to happen or be accomplished with the airport side of this "two-faced" service station. The concrete drive-way from the station to the airport should be fenced on both sides. This is to keep pedestrians clear of this section as well as prohibiting the careless parking of cars, as taxying aeroplanes and parked automobiles have no business mingling with each other.

Bear in mind that a pilot's visibility while taxying the average aeroplane is very poor and he needs a clear path ahead. When an aeroplane is taxying the tail is down and the nose is high and to see clearly is almost an impossibility only when the plane is in flight or in a horizontal position.

Most aeroplane gasoline tanks are located in the wings, which permits a gravity flow of the gasoline to the

engine. In biplanes the tank is generally in the top wing so a good, mature giraffe would be an excellent service station attendant on the airport side.

The device in the center which resembles a flag pole is a gasoline tower. It can be constructed of six-inch casing pipe, securely set and anchored in concrete, and capped 20 feet from the ground, at which point a swivel joint and a 40-foot cross arm are installed, with adequate guy wires reaching from the end of the cross arm to the extended, smaller diameter vertical pipe. On the top of this gasoline tower can be mounted a designed flag or pennant but better still, a wind sausage.

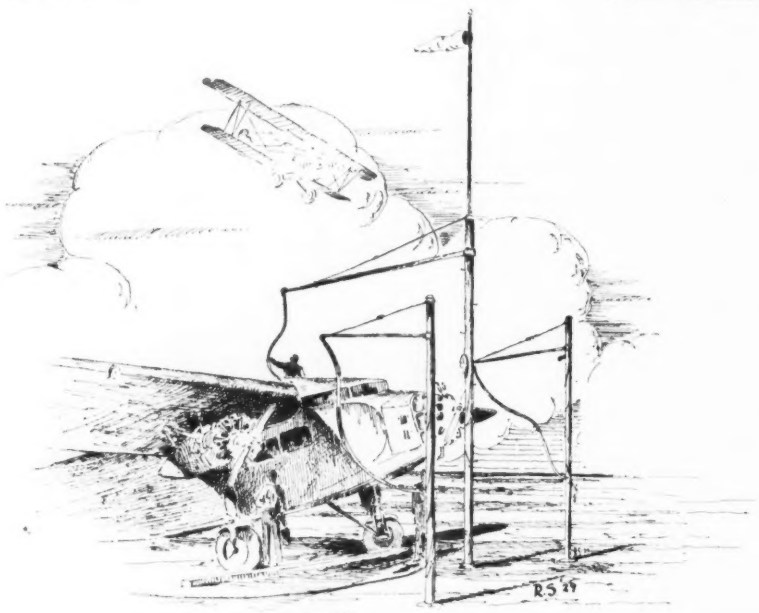
On the end of the cross arm a 15-gallon gasoline hose and shut-off nozzle is installed. Basicly this gasoline tower is only a refinement of your present tank truck loading equipment at your bulk stations. About six feet from the ground a conventional type flow-meter will be installed so that it will be clearly visible to an attendant filling a plane's gasoline tank even though he were standing on a step-ladder. Here's a new market for some step ladder manufacturer and it's no joke either.

If you make a gasoline installation at an airport be sure you delegate your most careful construction men to install the underground gasoline tanks. Water in aeroplane gasoline is a very hazardous element which might easily cause a fatal forced landing, and any carelessness in this connection should be considered a statute crime.

Every known and practical method of keeping water out of gasoline should be employed, such as greatly elevating one end of the tank with a large flange opening at the other end for frequently pumping out; suction or discharge lines high from the bottom of the tank; moisture condensers and filters in the air lines.

THE storage and dispensing of lubricating oils is also most important. We all know that water or moisture and oil form an emulsion which practically destroys its lubricating qualities and all aeroplane engines operate at high revolutions per minute during flight and therefore demand perfect lubrication to avoid serious trouble.

Two small lubricating oil towers, similar in construction to the gasoline tower, can be installed in close proximity. The oil storage tanks should be the above-ground, pressure type and located in the airport side of the service station building where frequent inspection and cleaning will be assured. As auxiliary equipment to these fixed oil towers or as a complete oil service, several portable, pressure oil containers, equipped with meters, long hoses and shut-off nozzles can be employed to a good advantage.



Sketch of suggested equipment for servicing airplanes to avoid damage to plane

The fixed and permanent equipment, just described, is recommended chiefly for transient or visiting aeroplanes, the occupants of which are generally anxious for quick refueling and departure from the airport. In order to facilitate speedy and careful service, a turntable is located directly in front of the service station, mounted on one edge of which is a disappearing curb acting as wheel chucks.

An aeroplane can only taxy ahead and cannot be backed-up only by man or tractor power. Even though tail-skid jacks are used, it requires a large space to turn a big ship so you can readily see the great advantage of the turntable.

Operators of airport service stations should give special attention to the training of their airport attendants, at least two attendants should be on duty at the edge of the field continually in order to assist visiting ships (one on each wing) while taxying into the station drive ways for service. Small reception, lounging and wash room for both men and women should be located in a convenient place.

The up-to-date operators at the larger airports will also supply weather and other information to his customers. This extra courtesy service is much appreciated by pilots and it's well to note that such attention is broadcast by one pilot to another and while laying out their flying course these items are strongly considered.

It will not only be a credit to your own business but also credit and good will to your local airport and community in general. Your large quantity gasoline and oil sales to aeroplanes will warrant any expense for this information service.

Don't forget the need of a long hose high pressure grease gun for servicing aeroplanes. The rocker and rocker arms of radial engines are equipped with Alemite and Zerk fittings, and the fuselage controls, tail skids and under carriage have the same lubrication system. A recent check with the leading aeroplane manufacturers disclosed that 60 per cent were using this method of lubrication while the remainder signified their intentions to adopt it. Someone very soon will prepare lubricating charts for all popular makes of aeroplanes.

Since it is not advisable to taxy the permanently stationed ships to the service station for refueling, the service station operator will maintain one or more small trucks, especially designed and equipped, so that each day or when called, this truck can go to each hangar and supply its requirements, giving service to each aeroplane.

THE best type of truck for this service is the small electric one similar to those used for baggage at railroad terminals and so popular in industrial establishments. A 200 to 300-gallon, pressure gasoline tank should be mounted on the truck with two or three, 50-gallon pressure oil tanks, all equipped with meters and long hoses with shut-off nozzles.

In place of using hand or power pumps to dispense gasoline and oil from the truck, a 30-gallon high pressure air tank, with reducing valves to each container tank, will supply a positive, uniform flow through the hose. The air tank can be replenished with air from the compressors at the main station.

Success of Repressuring in Burbank Field Shown at A.P.I. Meeting

By John Power
N. P. N. STAFF WRITER

BURBANK, Aug. 17

REPRESSURING, its application and results was the topic of discussion at the regular August meeting of the Burbank field chapter of the American Petroleum Institute Division of Development and Production Engineering, held the evening of August 14.

Repressuring has been singularly successful in the Burbank field. The rate of decline has in many cases been arrested, and the gravity of the production raised. One of the most successful of the properties repressured has been the Carter Oil Co.'s Allen tract in 16-26-6, on which the experiment was started in 1926.

In September of that year the 16 wells on the lease produced 3400 barrels total production. In April of this year, so successful has been the repressuring that the wells made 2700 barrels. Initial production of the wells on the tract ranged from 150 barrels per day to 755 barrels, the average being around 490 barrels per day. Average depth of the sand was 2911 feet.

When repressuring was started a key input well was drilled in the center of the 160-acre tract. This well had an initial production of 35 barrels per day. In this part of the field a shale break separates the oil sand from a gas sand lying a short way above it. All of the wells, when completed, were shot, precluding getting a good gas shut off to keep the input gas in the oil sand. It was this reason as much as any other which caused the drilling of the No. 17 well as a key well, for the production was not considered large enough to justify much expense in getting it.

The repressuring has more than proven profitable. The decline curve, extrapolated on logarithmic paper, indicates that by April of this year the lease's production would have been but 1024 barrels, as against the 2700 barrels it actually produced. The total gain in production since repressure was started totals 57,625 barrels, which at a price of $1.75 per barrel, has been worth $100,800.

The average input of gas into the key well has been 6360 cubic feet of gas per barrel of extra oil produced. After deducting what it cost to put this gas into the sand, the average cost per barrel of the additional oil was 23.6 cents.

The repressuring plant is part of the gasoline plant for which a declining gas supply left no further use. The net gain, with all plant and operating charges figured in, plus the cost of the key well, leaves a net profit of some $37,000 to the credit of repressuring.

With an estimated three years yet to go on the probable life of the lease, it is expected that the profits will be even greater, as the cost of the plant and the key well have been charged off. No figures are available for the increased gasoline output of the casinghead gas, but it is believed that increase has been considerable. Residue gas only is used in the repressuring on this lease.

THE gas was put into the key well at 320 pounds pressure. It is now generally believed that a ratio of 1 to 16 for key wells to producers is too great for the best results from repressuring. The production now, however, is not considered large enough to justify the expense of drilling additional key wells. Nor has there so far been any consideration paid to abandoning one of the wells now producing and using it as a key well.

The Shell Petroleum Corp. has, in one instance, tried putting propane under 100 pounds pressure back into the sand, but without any marked results.

Phillips Petroleum Corp. is another producing company which has made extensive repressuring experiments in the Burbank field. On its Hays lease it has recovered some 11,000 barrels of oil since March, 1928, above the amount the normal decline curve indicated would be the recovery. To recover this oil it has introduced into the sand a daily average of 118,000 cubic feet of gas per day at an average pressure of around 70 pounds.

ON ITS Norman lease the Phillips has recovered an additional 16,000 barrels through repressuring with 125,000 cubic feet per day at 25 pounds pressure.

The same company's Knapp lease has yielded an extra 19,000 barrels due to repressuring since the first of 1929. Twenty-five million feet of residue gas has been used, the daily average being around 120,000 cubic feet.

Other leases, on which repressuring has been tried have not been under its influence long enough as yet to show any material results, though the Phillips men present at the meeting said that these more recently repressured leases were coming along satisfactorily.

Phillips uses less gas volumes and lower pressures than does the Carter. Engineers of the Phillips are of the opinion that too great volumes and pressures might cause a channeling in the sand. Back pressure is kept on the wells, and a high fluid level is maintained as an added precaution against sand channeling, and a by-passing of the gas from one well to another.

Phillips uses wells previously drilled as producers for the key wells, although this is not generally considered as satisfactory as a well located and drilled for an input well. The present small production, however, precludes the spending of very much money in the application of the repressure.

To put the wells in shape to use as key wells they are first cleaned out. The upper gas sand is cased off with a liner, although the poor logs of some of the wells make this a difficult thing to do with the required accuracy. Residue gas from the gasoline plants is used as the repressure agent, the lines to the wells being run from the plants to the casinghead of the key wells.

E. O. Bennett, chief engineer of the Continental Oil Co. will be the principal speaker at the next monthly meeting of the chapter, scheduled for September 11.

Sinclair Asks Commutation Of Jail Sentence

WASHINGTON, Aug. 17.—Harry F. Sinclair and Henry M. Day, sentenced to District of Columbia jail for contempt of court in recent government naval oil lease cases, have appealed for commutation of sentence. Motives for the request have not been given. Mr. Sinclair's term expires about Thanksgiving, that of Mr. Day on Oct. 4, if the usual time is granted for good behavior.

Seminole A. P. I. Chapter Discusses Pumping Deep Crooked Wells

By John Power
N. P. N. STAFF WRITER

SEMINOLE, Aug. 14

THE problem of producing the small but deep well weighs most heavily on the operators and superintendents of the Seminole area at the present time. Many wells, big producers in their day, have declined in oil production, and increased in water produced with the oil, to a point where a large amount of fluid must be handled, out of which but a small part returns any income. It was to this problem that the superintendent and field men members of the Seminole chapter of the American Petroleum Institute division of Development and Production Engineering turned their attention at their regular monthly meeting August 13.

Pressure on the face of the sand in pumping wells has been tried with varying degrees of success. Results have been beneficial enough so far, however, to inspire further work along this line.

Two general methods of establishing and maintaining a back pressure on the face of the sand have been tried. The first, the Barnsdall Oil Co.'s method, is to shut in the casing head, letting the formation gas build up such pressure as it can. It was felt that this method would lower the viscosity of the oil, making it easier and lighter to pump, as well as helping the gravity.

No increase in day to day production was noticed as a result of this application of back pressure. Nevertheless, nearly 50 per cent reduction in down time was recorded in the pumping wells which were so treated, the rods standing up much better than before. On none of the Barnsdall's properties which were so treated was the casing-head gas contracted to some outside concern, so that gas delivery to plants was not obligatory.

More fully discussed at the meeting was the Pure Oil Co.'s method of applying back pressure to the smaller pumping wells. The Pure has been intermitting gas from the compressor plants at three hour intervals, building up pressures to around 20 pounds and then releasing it. By releasing the pressure, it was felt that no restraint was placed on the oil in its migration into the well, but that by applying the pressure for brief periods, the fluid level was first raised and then lowered, giving a washing effect on the face of the sand.

In one well cited as an instance, the production on April 1 of this year, amounted to about 90 barrels. The intermitting of gas was tried, and the well showed a steady increase in daily production, climbing by May 23 to 156 barrels. The intermitting was then stopped, and production fell off immediately. In June the intermitting was again started, with a subsequent rise in production until the daily average was again around 150 barrels.

This has, perhaps, been the most outstanding successful trial of the intermitting of gas to a pumping well. Another well was so treated, but the supply of gas was insufficient to make the operation continuous. But few wells have been the subject for these experiments, and none has responded as well as the first test. In some instances production declined slowly, but at a slightly faster rate than that indicated by the normal rate of decline.

No definite reasons, other than the washing effect on the face of the sand was ascribed, at the meeting, to the raise in production of the first well pressured. Further experiments are to be made along the line of back pressuring the pumping wells, with the idea in mind of either raising the daily production, or reducing the down time by cutting down on rod troubles. The results of these experiments will be followed in NATIONAL PETROLEUM NEWS as the data become available.

THE danger of gas locking the pumps in the wells made it advisable that they be shut down during the admission of the gas. Although in wells which maintained a fairly high fluid level, this is not considered necessary.

That the establishing of pressure on the face of the sand, even for short intervals might be ineffective in some wells located on a sand fracture was evidenced by the action of one of the offsets to a well to which the back pressure was applied. With little or no effect on the well pressured, the production of the offsetting well was nearly doubled. Unfortunately, this offset did not belong to the company doing the back pressuring.

Lightening the load on the rods is and has been for some time the burden of the production department's song with nearly all companies operating in the Seminole area. To this end, two companies have tried a combination flowing and pumping procedure, but without sufficient success for either of them to feel confident of the immediate success of this method. In general, the methods tried by both companies were the same, although the sizes of equipment, as well as the details of construction varied.

In general, a pump, any kind favored by the operator, whether it be a patented plunger barrel or a common working barrel, is set at or near the bottom of the hole. About 1000 feet from bottom under sufficient pressure to flow the column of oil from that depth to the surface gas is admitted to the tubing through valves in the tubing.

THE gas, which is put down the annular space between the tubing and the casing, is stopped in its passage down the hole by a packer set just below the gas admission valves in the tubing. Formation gasses are vented either by ripping the 6⅝-inch, where there is no water behind this string, or by passing a small venting tube through the packer, and running a string of ¾-inch up beside the tubing. When the casing is ripped the formation gas is passed out between the 6⅝-inch and the 8¼-inch casing.

Although it is conceded that this method will handle much more fluid than is possible under straight pumping conditions, rod trouble showed if anything an increase. This increase is generally attributed to the greatly lowered viscosity of the oil being pumped, lowering its lubricating efficiency, so that the rods promptly wore out. With the holes as crooked as many of them undeniably are, the rods have a tendency to rub through either the tubing or themselves in short order.

Buys Western Oil Properties

ROCK ISLAND, Ill., Aug. 17.—The Midway Oil Co., Inc., of Rock Island, has purchased the properties of the Western Oil Co. of Iowa City, Ia. The purchase included bulk plants at Iowa City and West Branch and two service stations at Iowa City. Announcement of the purchase was made by H. P. Cook of the Midway.

Progress Made on Gas Pipeline From Monroe to Birmingham

By Paul Wagner
N. P. N. STAFF WRITER

HOUSTON, Aug. 15

MORE than 130 miles of main line construction has been completed by Southern Natural Gas Corp. on its transmission system from the Monroe and Richland parish regions of North Louisiana to Birmingham, Ala., and Atlanta, Ga.

Completion of the 22-inch pipeline to Birmingham is contemplated by Dec. 31, 1929. Contracts have been signed with natural gas operators for line requirements and wholesale quantities of fuel are to be delivered for domestic and industrial consumption soon after completion of the initial system.

Eventually, plans call for extension of the system northerly into the Chattanooga, Tenn., district easterly past Atlanta as far as Milledgeville, Ga., and southerly to the Selma and Montgomery, Ala., districts.

When the entire project has been completed it will involve construction of about 1400 miles of pipeline at a cost estimated to exceed $35,000,000.

Surveys had been completed for approximately 850 miles of the system in July and work was being carried forward regularly in succeeding weeks. At that time grants had been taken for 400 miles and right-of-way cleared for nearly 100 miles.

Construction work was then pressed on the Monroe-to-Birmingham section, which will be the first to be put in operation.

Contracts had been placed in May for about 60,000 tons of pipe with the National Tube Co., and approximately 40,000 tons with the A. O. Smith Corp., and the Republic Iron & Steel Co.

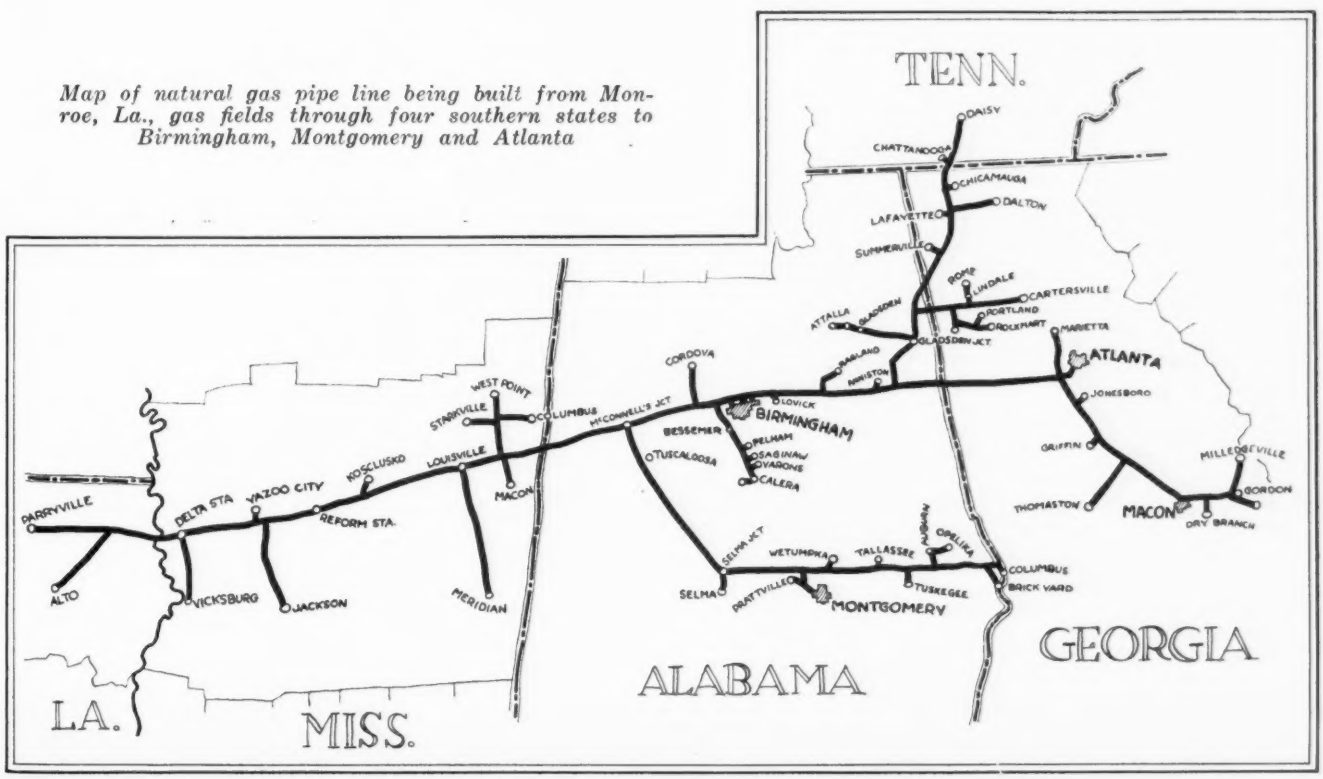
The prompt deliveries made in July expedited construction work on the part of the seven crews engaged in laying the Birmingham section of the line.

Gas supplies for the system will be assured by contracts made with subsidiaries of the Standard Oil Co. of New Jersey and the Electric Bond & Share Corp., together with the Southern Carbon Co., the United Carbon Co., the Moody-Seagraves interests and the Palmer Corp. of Louisiana.

An aerial survey of the pipeline route was made by the Edgar Tobin Aerial Survey, Inc., of San Antonio, before work of taking the right-of-way and constructing the system was begun.

R. C. Sharp of Tulsa, long identified with the natural gas industry of the Mid-Continent, is president of the Southern Natural Gas Corp.

A $13,000,000 bond issue recently floated through New York bankers consists of 6 per cent sinking fund gold paper, series of 1944, carrying a common stock purchase privilege. The holder of each $1,000 bond (and $500 proportionately) will be entitled, subsequent to July 1, 1930 and subject to previous redemption of the bonds, to purchase thirty shares of the common stock of the corporation at $12.50 a share to and including July 1, 1932; thereafter, to and including July 1, 1935, $17.50 a share; and thereafter, to and including July 1, 1938, $25 a share. The stock purchase privilege will be void thereafter.



Map of natural gas pipe line being built from Monroe, La., gas fields through four southern states to Birmingham, Montgomery and Atlanta

Review of Late Production News

FOLLOWING a week of declining production, another new high mark was established the week ended Aug. 17 when the country's daily average rose to 2,941,550 barrels, a gain of 45,550 barrels over the previous week, according to the American Petroleum Institute.

Crude imports were at the rate of 251,000 barrels daily, a decrease of 5571 barrels from the previous week. Total new crude supply reached 3,192,550 barrels, falling short but 200 barrels of the record supply of the week ended July 13. The past week's supply was a gain of 39,979 barrels over the supply of the week ended Aug. 10.

Santa Fe Springs was mainly responsible for the large increase in the country, production in that field gaining 29,000 barrels on daily average. Gray county in the Texas Panhandle was also a large contributor, it gaining 11,000 barrels.

Smaller increases included the Earlsboro field, with a gain of 4900 barrels; Ventury Ave. 3000; Barbers Hill, coastal Texas, 4300; and Montague-Cooke field 2600 barrels.

Pecos county fell off 4700 barrels, and there were minor decreases in other fields.

Texas, New Mexico, Louisiana

THE finding of a second deep pay horizon in Sleicher county, Texas, has encouraged the belief that another oil producing province may materialize in the Lone Star state. Drilling in its No. 1 Whitten, Sec. 35, north of the town of Eldorado and approximately 40 miles southwest of San Angelo, the Phillips Petroleum Co. and Interstate Oil Co., found oil testing 36.4 degrees, A.P.I. gravity, that rose 1800 feet in the hole at 4925 feet. It was accompanied by about 500,000 cubic feet of gas daily.

Between the town of Luling and the new Darst Creek field of Guadalupe county, central south Texas, the Penn Oil Co., of Dallas, had a gas blowout at 2416 feet in No. 1 Manford. Oil and gas shows in craters within a radius of 100 yards of the test, in part accounting for wild reports which gained currency of a "gusher" discovery well. Efforts were being made at the end of the week to run six-inch casing and complete the well.

In 11-25S-36E, Lea county, New Mexico, Continental Oil Co.'s No. 1 E. J. Wells test, produced 130 barrels of fluid daily, 85 per cent sulfur water, at 3552 feet.

Flank drilling on the old Anse la Bute salt dome, in St. Martin parish, Louisiana, will follow completion of the Yount-Lee Oil Co.'s No. 5 Louisiana Petroleum Co. test for 1000 barrels, initial production, at 3764 feet. The oil tests 32.5 degrees A.P.I. gravity. Older production was at shallower levels.

Current production in this country by pools is found on page 113.

Oklahoma-Kansas

FIVE wells in Gray county in the Texas Panhandle were completed with a total initial production around 15,000 barrels per day. Four of the wells were in the Bowers pool, the other in the Finley pool some two miles or so to the East, and midway between the Bowers pool and LeFors.

Oklahoma City continued to be the chief topic of interest in Oklahoma. A new well, the Shell Petroleum Corp. No. 2 Petty, in the SW NE of 30-11N-2W, is partially completed in the deep siliceous lime pay. At a depth of 6545 feet the well was flowing 60 barrels an hour. It is being deepened.

The well completed last week, the Indian Territory Illuminating Oil Co. No. 1 S. Bodine, in the NW of 30-11-2W, and a diagonal southeast offset to the discovery well, fell off sharply during the week, production declining more than 1700 barrels in one day's time. Water with the oil increased rapidly at the same time, going from less than 900 barrels per day to more than 2000 barrels.

No developments of importance were reported from Kansas.

California

CALIFORNIA daily average was increased 25,000 barrels for week ending August 17 giving a total output of 885,000 barrels. This increase was largely due to new completions in the O'Connell and 3rd. Clarke zones at Santa Fe Springs although other fields contributed their share to a lesser extent, and some showed a decrease over the figures for the previous week.

Santa Fe Springs production was up approximately 25,000 barrels, Dominguez 2,600 and Inglewood 1000 barrels. Elwood showed a shading of 4,000 barrels as compared with week ending August 10, caused principally by the killing of a producer that had an abnormal oil to gas ratio.

Some operators are flowing their wells wide open in anticipation of curtailment measures to be effected by enforcement of California's new gas conservation law September 1.

Developments of an indicative nature are expected soon from wells drilling at critical depths in the Ketleman Hills area.

Wyoming, Montana

MAJOR companies, interested in the Salt Creek field, it is understood, have reached an agreement for producing the lower sands in that field whereby the work will be carried on with every safeguard of conservation of both oil and gas. Heretofore most of the production from the field has been coming from the three Wall Creek sands.

Recently a number of wells have been completed in the Dakota, Lakota and Sundance sands. Midwest Refining Company is now drilling a test in the center of the field, which will be carried to the granite and cut the Embar, Tensleep, Madison, Amazden and Deadwood formations. It is expected that all of the possible producing sands in the field can be reached in a test less than 7000 feet in depth.

Cross-Section of Oklahoma City Field Resembles That of Garber

By William F. Lowe
N. P. N. STAFF WRITER

OKLAHOMA CITY, Aug. 20

THE Oklahoma City pool, young as it is, has already introduced geologic and production problems that are new to Oklahoma. Three years ago a prominent Mid-Continent geologist ventured the statement that all the important pools in Oklahoma had been found. At that time there seemed to be some justification for the remark, for there were nearly 300 pools already in the state and wildcat failures were being reported with some regularity.

Since then, however, have come the Seminole area, with its several pools, and now Oklahoma City is assuming major proportions. This youngest of the Mid-Continent's large productive areas already has made a decided impression on the minds of economists, producers, and geologists. Although technically about nine months old, the true significance of the pool has been delayed due to the time necessary to reach the deep production.

In this new pool the producing difficulties are exactly that—difficulties. Connecting up a 20,000 barrel well so it will not sandcut its way to liberty within the hour, and controlling a 2300 pound rock pressure are not just tricks. These are problems requiring engineering ingenuity and skill, but they have an advantage over the geologic questions. They are visible obstacles.

On the other hand the geologist already is being asked by his executives the extent and life of the pool, the possibility of additional production in the Wilcox and the truth about the connection between the detrital zone and the Siliceous lime. These questions come at a time when only 12 wells have been completed, and the information supplied by these wells throws as much confusion as light on the subject. Within certain limits the questions are probably answered, but it is a safe bet that some of these early reports will be good reading when winter comes.

Even with the present meagre information at hand, a sub-surface picture may be attempted and be fairly accurate as far as it goes.

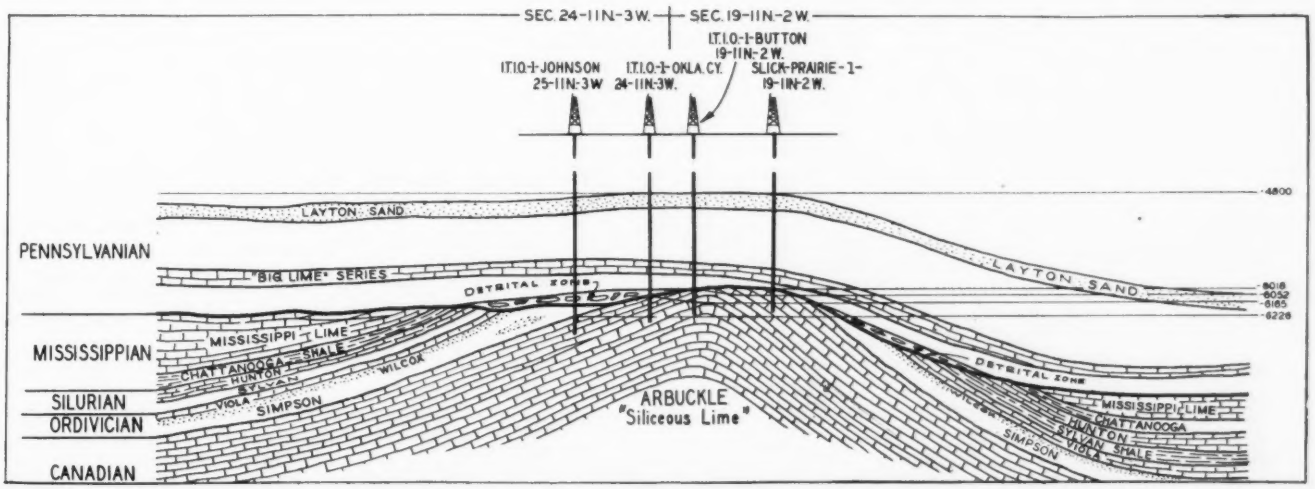
The resemblance in general cross-section to the Garber field is rather striking; the principle difference being in the already indicated broader exposure of the Arbuckle. This may be due to greater erosion of the pre-Pennsylvanian beds, or to a difference in geologic history. At Garber, approximately 750 feet of these sediments were removed, while at Oklahoma City, over 1500 feet are missing. So great a removal raised a question in the minds of geologists as to their method of deposition, though the presence of the detrital zone aided somewhat in the probable solution.

The question was argued at length as to whether the upper portion of the Arbuckle was an island during the deposition of the pre-Pennsylvanian, or whether these deposits were laid down in uniform series over the crest of the dome. If the former were the case, and the Simpson, Viola, Sylvan, and Hunton were laid down in a horizontal position, it would seem that the I. T. I. O. No. 1 Johnson, 25-11-3W, would have passed through the wash zone into the Hunton and Sylvan before entering the Arbuckle.

This, however, is not the case. The detrital zone was resting on the Simpson. Deposition, then, must have been uniform over the dome, and subsequent erosion reduced the section to a position similar to that shown in the accompanying cross-section.

Another fact which contributes to this conclusion is the lithologic character and fossil content of the detrital zone. It appears to be made up of dolomitic fragments of both the Simpson and Arbuckle, and to contain Ordivician fossils of the Simpson or above. The zone thickens on the flanks of the structure, and later drilling down the slope may see it change to include the wash of the upper Ordivician beds.

The connection of the detrital zone with the Arbuckle is still a matter of debate. Known to be lenticular and irregular, containing large quantities of gas in some wells, oil in others, and dry in one case, it seems to offer a poor medium for migration. Erosional relief or zones of fracture may tie in certain of its productive lenses with producing horizons either in the Siliceous lime, or at the top of eroded



Generalized Cross-Section of the Oklahoma City Pool showing the position of the Detrital Zone

beds on the flanks. But this is a possibility that has not as yet been proven.

Many operators fear that such a condition does exist, and feel that a reduction in gas pressure of the zone would materially lessen recovery from the pay sands below. This would be especially true of the Siliceous lime, since its pay horizon seems well connected, but is not considered a continuous bed. In fact this lime seems to be absolutely lacking in continuous beds and a good checking point has not been found.

There are several fossil chert zones, and streaks of oolitic dolomite, but none are persistent. The reservoirs themselves appear as lenses at irregular intervals below the top of the lime, and the connection between them may be due to compression joints or fractures.

Some geologists think that the process of dolomitization, which caused some of the lenses, may also have made porous avenues for migration. It is possible that leaching, too, played a part. Be that as it may, speculation will continue until more definite information can be obtained.

As to the extent of the pool, there is little to be said beyond conjecture. From the Slick-Prairie No. 1 Hiddleston, 19-11N-2W, the highest well on the lime, to the I. T. I. O. No. 1 Johnson, 25-11N-3W, a west dip on the lime of about 200 feet to the mile is shown. In the former well only a trace of detrital zone was logged, while 141 feet is reported in the Johnson.

The wells between these two all seem to be on the west side of the structure, with no well as yet indicating an east dip. However, Slick-Prairie No. 2 Hiddleston, 19-11N-2W, and the Shell No. 3 Petty, which offsets it on the south, are logging low on the shallower beds.

This is not considered to be a good indication. In other pools of the state of like structure, any noticeable dropping off of the upper beds east of the crest, has been attended by a very decided dip in the pre-Pennsylvanian strata below. In the event this should prove true at Oklahoma City, the prediction of some operators that the east slope extends as far as the east line of section 20-11N-2W, may prove a bit optimistic. The consensus seems to be that the pool may be slightly over two miles wide and six miles long.

Production in the Wilcox sand on the east flank will probably not be comparable with the big pays of the Siliceous lime, but it should be a factor in the ultimate yield of the pool.

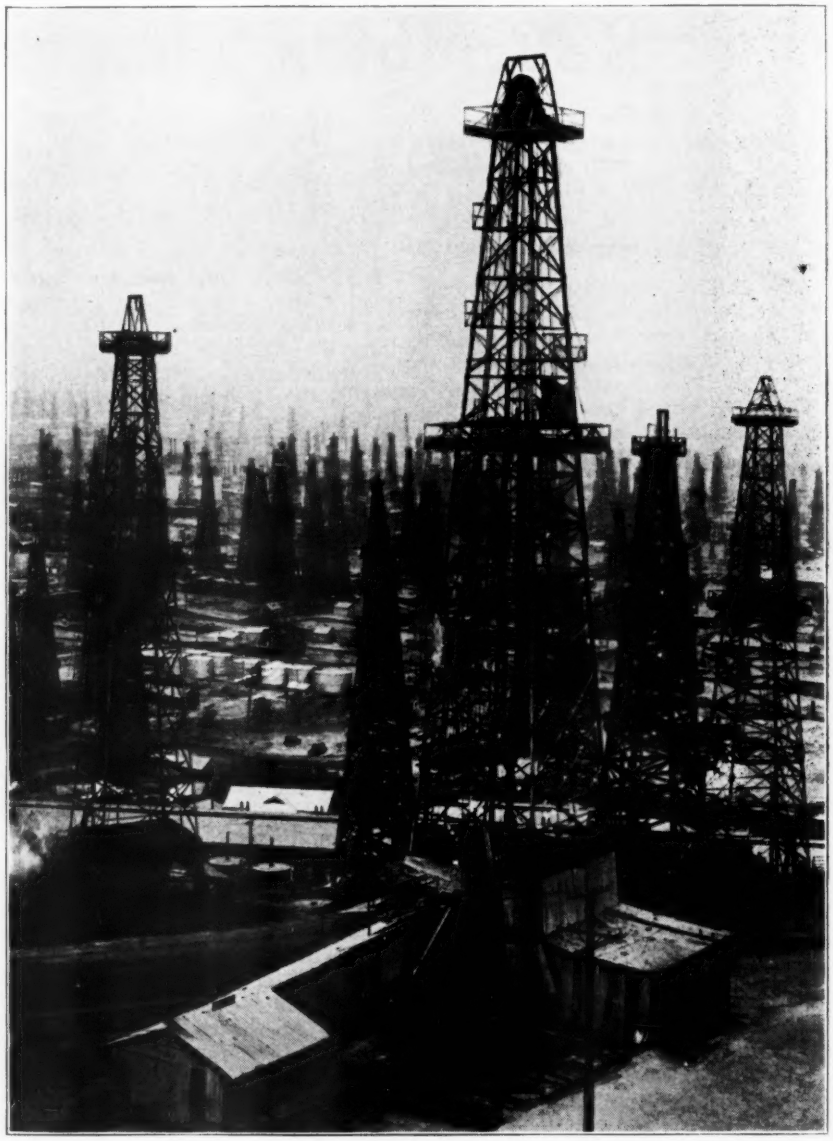
The erratic behavior of the wells already producing, as regards the water situation, is causing the usual discussion concerning the hydrostatic head behind the oil. At the present writing, 10 of the 12 producing wells are showing water in varying amounts. Only a trace is found in the newer wells, while the discovery well, the I. T. I. O. No. 1 Foster, 24-11N-3W, produced 393 barrels of water and 1629 barrels of oil on August 8.

The fluctuation of the water in this well, which is beginning to show a decline, indicates the possibility of its not being edge water. It is more like the connate variety which exhausts itself in a short time. During the deposition of the unconformable beds immediately above the Arbuckle, certain waters of the early seas could have been trapped within the lime.

Later, as oil migrated into the same beds, this water was forced into pore spaces not so easily occupied by the oil. Now, with a release of pressure, this may be the water that is showing itself in the pool. Edge water will probably come later from beds on the flanks of the structure, but there is some doubt as to the present existance of a large hydrostatic head within the Siliceous lime itself.

Regardless of the threat of water, peak production is not near in sight.

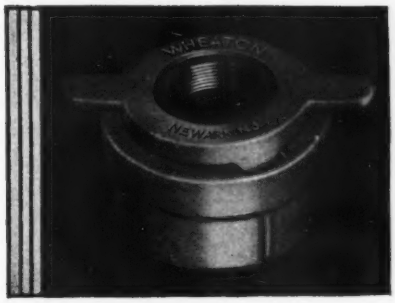
Shell Well Drilling at 9280 Feet



Underwood & Underwood

SHELL OIL CO.'s deep test of the Long Beach area is drilling ahead below the 9280 level in the same light brown shale, streaks of gray sand and thin layers of hard shell that has existed for the past 400 feet.

Early in the week hard drilling was encountered at 9248 feet and was continued in to 9252 feet. When this tough formation is penetrated progress must be very slow because of the fear of mechanical trouble and the dulling action on the bit. At other times soft formation is struck and as much as 20 feet of hole is made in one day.



Here the coupling is shown locked in position after a connection has been made.

This *New* WHEATON COUPLING for *Underground Storage Tanks* SAVES MONEY

The male and female couplings, with the *double tapped* pipe connection between, are shown here.

—Costs Less
and
Reduces Time and Labor
in making
Foot Valve Corrections

THIS *new* coupling—designed by WHEATON especially for Underground Storage Tanks—effects a *double saving*, because in the first place it *costs less*, and in the second place it saves both *time and labor* in getting at the foot valve. There is no digging, no unscrewing of parts. Corrections are made in *one-fourth* the time usually required.

The female coupling is attached either to a 3½″ nipple or directly to the flange of the tank. The *double-tapped* pipe connection—which is seated in the female coupling—quickly connects the foot valve with the pipe line. The male coupling slips down over the pipe connection, and its lugs lock into the female coupling. A part turn of the wings makes the connection *tight*.

Send for a sample of this new Wheaton coupling. Give it a 30 or 60 days' trial. If you are not entirely satisfied, you may return it for credit or refund. Prices: 3½″ Coupling, with 1½″ pipe connection—$5.50; 3½″ Coupling, with 2″ pipe connection—$6.50. Write for discounts.

A. W. WHEATON BRASS WORKS, NEWARK, N. J.

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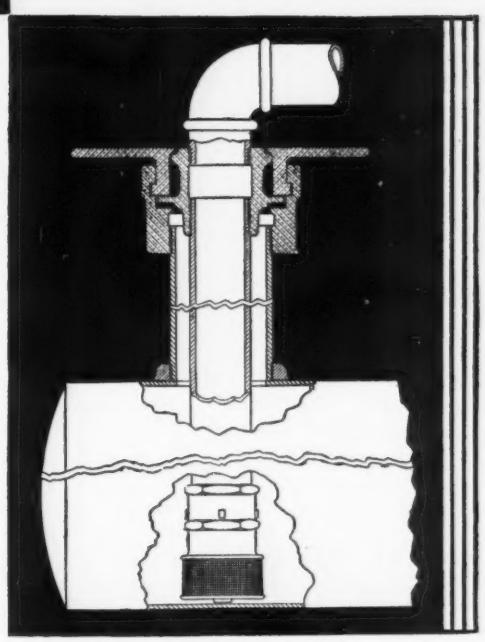

Wheaton

FAUCETS · VALVES · JOINTS · COUPLINGS · FILLERS · NOZZLES · FITTINGS

TULSA

ONE of Oklahoma's major sporting events, which regularly finds many oil men in attendance, is the Terrapin Derby, held on Labor Day at the 101 Ranch, near Ponca City. The event is beginning to attract outside interest, as is seen by the placing on the board of directors the names of Irvin Cobb and Rex Beach, well known authors and Ray Long, editor of Cosmopolitan.

The Derby is as much an Oklahoma institution as is the Kentucky Derby in that state. Entries, which cost $2.00 per, reached the astonishing total of 4500 last year, and the management expects 5000 spirited shell backs to face the barrier this year.

The scene at the race itself beggars description. Imagine thorobred terrapins, proudly tracing their ancestry back to "Old Mossback," winner of the famous match race against the good hare "Aesop's Dynamite." Winners of the preliminary heats, run 1000 terrapins at a time, panting from their heroic exertions, grooms rubbing their legs and blanketing them against cooling out too quickly. (With preliminary heats as large as this the first hundred or so are generally eligible for the finals.)

And then the final heat. With a $5000 first prize to the owner of the first terrapin to cross the circular finish line, and substantial prizes to those whose entries finish in the money, the tension is something to try men's souls.

At the crack of the starting gun one alert turtle dashes madly for the line, gets almost to it, and then suddenly remembers that he had promised to go fishing that night with a friend, and lies down and goes to sleep to await his partner's arrival, which may be the next day.

Finally some serious minded entry waddles across the line, and the race is over and won. Class and condition have told, and the winning terrapin is regaled with tales of the swell soup he will make. And all this, mind you, without jockeys.

* * *

As usual, the weather made a sucker out of us before last week's copy could reach the press. Rains and cooler weather have made most of Oklahoma habitable again. We have, however, taken the sudden drop in temperature as a personal matter, and so far as we are concerned, the weather is out as a topic in this column so long as it is under our supervision. Anxious readers will have to assume that Oklahoma is having weather, and consult an almanac for more detailed reports.

Staff Writer Jack Power again is batting for Larry Smith this week while the latter is engaging in piscatorial pastime in the wilds of Wisconsin.

* * *

Charles L. McMahon, well known independent oil operator of Tulsa, has started a two months' vacation abroad. Mr. McMahon, accompanied by Mrs. McMahon, and son Charles junior, sailed recently on the Berengaria.

E. S. Karstedt

Vice president in charge of sales for the Continental Oil Co. Mr. Karstedt has been working out a new set up of the sales organization of the new Continental-Marland merged companies

* * *

W. B. Pine, Senator from Oklahoma, and an active Independent oil man, is of the opinion that the fight for a tariff on imported crude oil has just begun. "If," says the Senator, "we can't get a tariff on agricultural products and oil, then we are opposed to a tariff on anything."

* * *

Guy R. Nicholson, who scouted the Panhandle for the Empire Oil & Refining Co. has been transferred to Bartlesville, Okla. as chief scout for the same company. Mr. Nicholson was president of the National Oil Scouts Association for a year.

* * *

J. J. Marrcini, who has been in the Ft. Worth geological department for the Continental (Marland) Oil Co. after having been in charge of the same company's Amarillo geological department, has been transferred back to Amarillo by the Continental. Mr. Marrcini is given credit for having discovered the Finley pool, just west of LeFors in Gray county, a spot which is providing such wells as was recently completed by the Phillips Petroleum Co. for 20,000 barrels daily.

* * *

When Lew H. Wentz, one of the best known Independent oil men in the state, undertook the job of Road Commissioner in Oklahoma, most people were of the opinion that he would prove an able and intelligent man for the job, less apt to pay attention to political aspects of road building than some. Mr. Wentz has so far done much to justify this high regard in which he is held.

The cement manufacturers, however, if not angry with Mr. Wentz, are at least terribly, terribly hurt, as he has gone out of the state to buy cement, for the trifling reason, (to them) that by doing so he saved the state some $36,000. The spectacle of a state being saved *anything* has so far left everyone but the cement people practically speechless.

* * *

From the Denver office of the Mid-West Exploration Co. to the Dixie Oil

Co. offices at Tulsa has been the latest move for F. J. Keleher, who was for a time treasurer of the Mid-West at Amarillo. The auditing in connection with the Dixie's purchase of a half interest in the Amerada Petroleum Corp. acreage will be among Mr. Keleher's first duties.

* * *

Spartan Aircraft Co., Tulsa's entry in the airplane manufacturing business, and in which W. G. Skelly, president of Skelly Oil Co. is heavily interested, last week launched a national advertising campaign with a full page spread in the Saturday Evening Post. The Spartan C-3, powered with the 165 horsepower Wright "Whirlwind Five" is the model being pushed at present, although plans are said to be in the making for a four place cabin job, and a two place training ship to be announced during the coming year.

* * *

The recent, or possibly present upward flurry in oil stock prices on the exchange, coupled with the recent rumors of trouble ahead for the crude oil price structure, has caused many a handful of hair to be pulled out recently in Tulsa by those given to playing the market.

* * *

Ten Years Ago

(From National Petroleum News Aug. 20, 1919)

Western refiners meet to discuss disposal of surplus stocks of fuel oil before fall capacity operations begin, at which time it was proposed that the refiners establish a central cracking plant to be operated by a stock company composed to W. P. R. A. members.

Katy railroad contracts with the Carson Petroleum Co. for 15,000,000 barrels of fuel oil, converting its engines from coal to oil.

Crude production in Wichita Falls district faces complete shutdown as railroad strike takes place.

Senate committee on public lands reports favorably on Senator Smoot's mineral land leasing bill, which provides that no discoverer of oil on public lands can ever obtain fee title to it, and that he remains a tenant always, paying royalty so long as his wells produce.

Vast potentialities for production develop in northwest Louisiana when the Oakes well of the Standard Oil Co. of Louisiana is brought in for 7000 barrels.

Standard Oil Co. of Louisiana completed a pipe line from its Oxford tank farm to the Bull Bayou field and posted $1.90 on Bull Bayou crude.

An 800-barrel producer in Kay county, two 1500-barrel wells in the Beggs field and two 400-barrel wells in the Osage, featured Oklahoma production news the week of Aug. 16.

Simms Buys Half Interest In Manford Discovery

HOUSTON, Aug. 17

ROBERT R. PENN of Dallas has sold to the Simms Oil Co., and 'Gene Germany, a half interest in his No. 1 Manford test, four miles southwest of Luling, and the 280-acre tract on which the well is located. Consideration is announced as $25,000 in cash and $1,000,000 out of part of the oil, when, if and as produced.

The Manford test blew out early in the present week, making gas craters in a radius of 100 yards from the well and showing oil. Effort is now being made to set casing and complete the test, which is a little west of midway between the new Darst Creek field of Guadalupe county, recently discovered by The Texas Co., and the older Salt Flat development, northeast of Luling in Caldwell county.

The Texas Co. has completed its No. 1 Lemmie Anderson, north offset to the Darst Creek discovery, which began producing at 2631 feet, on nine feet in the Edwards lime pay. It was placed on swabbing test Aug. 16, at which time the well was estimated good for upwards of 1,000 barrels daily.

Except for the discovery well and the Lemmie Anderson offset, no other development is contemplated for the present in the Darst Creek discovery area. It was announced about two weeks ago that the Gulf Production Co., the Humble Oil & Refining Co., and The Texas Co., would not engage in competitive development in the area until general conditions improve or field conditions force activity.

In Gulf Coastal Texas, a new producing area was found by Harvey S. Smith, Inc., of Houston, who drilled the discovery well on the Esperson prospect, east of Crosby, in Liberty county. The well came in for an estimated initial flow of 1,000 barrels daily at 3326 feet on a 34-acre tract near the top of the Esperson salt dome. All other acreage in the area is controlled by Union Exploration Co., a Moody-Seagraves interest, which located the prospect by geophysical means.

At Mykawa, east of Houston and southeast of the old Pierce Junction salt dome field, the Humble Oil & Refining Co. had a gas blowout at 4189 feet in its No. 2 W. H. Irvin test. The test was drilled on a part of a 3000-acre block assembled by the Cockburn Oil Corp., and turned to the Humble for testing and development.

Appoint Technical Group On Oil Pollution

NEW YORK, Aug. 17.—A technical committee on prevention of pollution has been appointed by the American Petroleum Institute to advise the general committee on oil pollution as to the technical aspects of the pollution problem.

The appointment is in accordance with recommendations made by the general committee at the annual meeting and approved by the executive committee. The new group will act solely in an advisory capacity.

David V. Stroop, engineer of the Institute staff, is chairman. Members are: H. H. Anderson, Shell Oil Co., San Francisco; H. W. Camp, Empire Companies, Tulsa; John Carlstrom, Texas Co., Port Arthur; H. B. Haney, Associated Oil Co., San Francisco; W. B. Hart, Atlantic Refining Co.; John S. Hess, Sinclair Refining Co.; Fritz Karge, Union Oil Co., Los Angeles; Harry Lowe, Vacuum Oil Co.; V. L. Martin, Prairie Oil & Gas Co., Independence; A. S. Russell, Standard Oil Co. of California, El Segundo, Cal.; W. E. Soden, Sun Oil Co., Marcus Hook; E. E. Swope, Magnolia Petroleum Corp., Beaumont; C. E. Waite, Standard Oil Co. of New Jersey, Bayonne, and George W. Watts, Standard Oil Co. of Indiana, Whiting.

Committee May Discuss Wind Loads

DALLAS, Aug. 17.—Discussion of derrick specifications pertaining to wind loads may come up before the December meeting of the American Petroleum Institute committee on the standardization of standard rigs and derricks in Chicago. A steel derrick manufacturer's request brought up the question as to the advisability of requiring a pipe set back factor in derricks where there will never be a pipe set back used. W. W. Fondron, national chairman of the Institute committee, asked Harry M. Runkle, International Derrick & Equipment Co., as chairman of the steel derrick manufacturers' sub-committee, to place the matter before the committee in order to prepare for a general discussion at the next regular meeting in December.

FORT WORTH, Aug. 15.—Dr. E. R. Lederer, president of the Natural Gasoline Association of America, is spending his vacation in California. He probably will spend the entire month in the west.

WHERE PIPE WEAR IS HARDEST

Use Genuine Puddled Wrought Iron

In underground oil lines, especially where pipe is alternately subjected to wet and dry conditions, Reading 5-Point Pipe sturdily resists corrosion, lasting many years longer than ordinary pipe.

In cooling towers, Reading 5-Point Pipe demonstrates its superiority by giving several times longer service.

On pipe lines where severe stresses are set up by expansion and contraction, the tough, fibrous structure of Reading 5-Point Pipe — a structure unique among metals — prevents breakage. And all Reading Lapwelded 5-Point Pipe is double welded for extra strength.

These are some of the great advantages of using Reading 5-Point Pipe in refinery service. All Reading 5-Point Pipe is made of Genuine Puddled Wrought Iron. Accept no substitute for this time-tested material.

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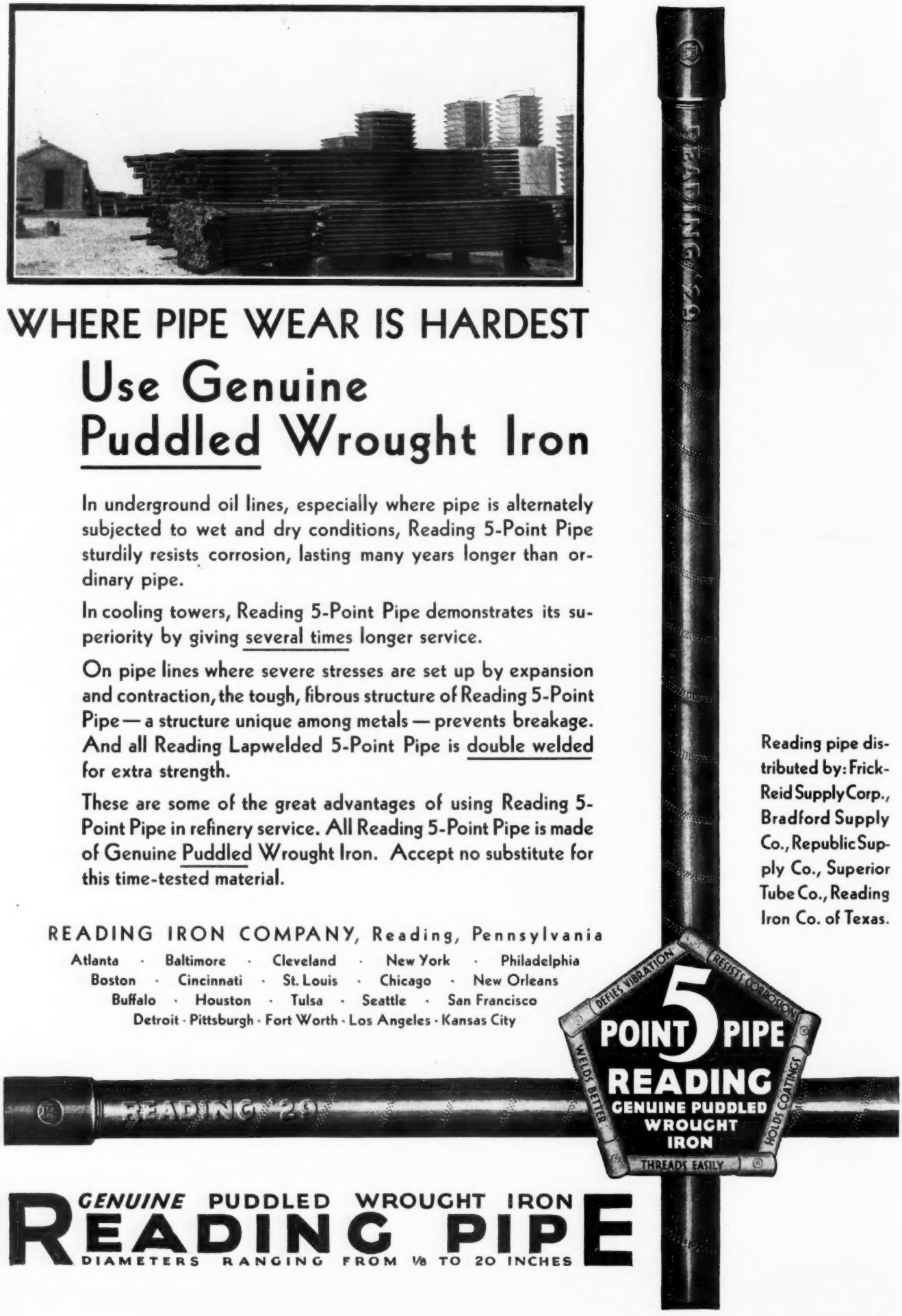
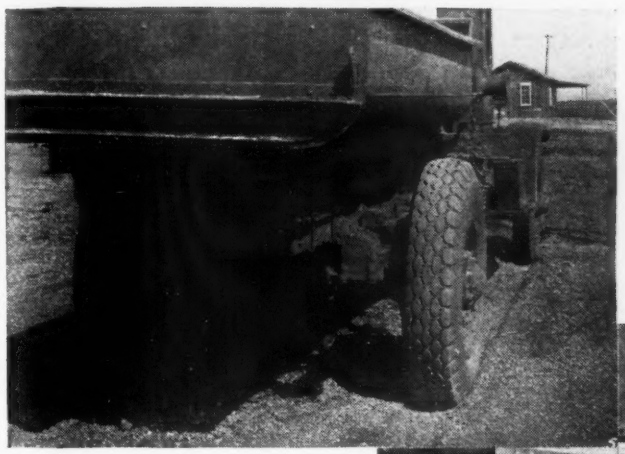


Reading pipe distributed by: Frick-Reid Supply Corp., Bradford Supply Co., Republic Supply Co., Superior Tube Co., Reading Iron Co. of Texas.

GENUINE PUDDLED WROUGHT IRON
READING PIPE
DIAMETERS RANGING FROM ⅛ TO 20 INCHES

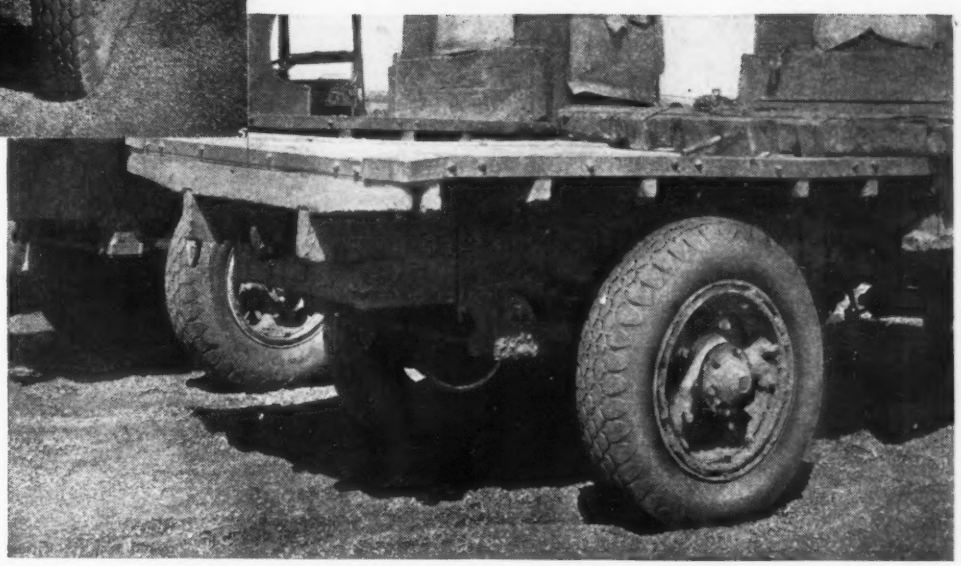
SPECIFY GOODRICH ON YOUR NEXT TRUCK

What a Brute OF A *Tire* FOR Punishment



Over fifty trucks of the Indian Territory Illuminating Oil Co. plow through rough going out in the oil fields and whiz down the city streets of Oklahoma City, Okla., on Goodrich Heavy Duty Silvertown "Oil Field Special" Tires.

(*See below*) Traction? Mileage? Just look at the size of that carcass and the tread! "Teeth" are set in that stubborn tread shoulder like those in the undershot jaw of a bull dog.



This SPECIAL GOODRICH TIRE *made for a* SPECIAL PURPOSE!

5 *special advantages for Oil Field Specials*

1. Unusually strong carcass of *reinforced* construction.
2. Rows of "teeth" like the undershot jaw of a bull dog give *added* traction from sides of ruts.
3. Top tread areas equal to assure traction and *even* wear on smooth roads.
4. *Twin* beads fit the tire snugly to rim and help resist "side-roll" wear.
5. The tire toughened *throughout* by the famous Goodrich "water cure."

The B. F. Goodrich Rubber Company, Established 1870, Akron, Ohio. Pacific Goodrich Rubber Company, Los Angeles, Calif. In Canada: Canadian Goodrich Company, Kitchener, Ontario.

OIL FIELDS represent the worst kind of road conditions. No one needs to tell you that! Truck operators who would ordinarily get thousands of *extra* miles out of tires on city streets usually get *less* mileage than their company pays for when they venture the rigors of oil field choppy roads.

Now Goodrich has built a super truck tire to meet these special conditions—the Goodrich Heavy Duty Silvertown "Oil Field Special."

Oil field truck operators have dubbed it the "Bull Dog of the Great Open Spaces." A *brute* for punishment . . . it *fights* right back at the mud ruts, the sun-baked prairies, swamps and cactus!

Traction? Mileage? It will out-pull and outlast *any* truck tire in the oil fields. Truck operators are learning the surpassing qualities of Goodrich Heavy Duty Oil Field Specials. Specify them on your next truck.

Goodrich

Oil Field Special HEAVY DUTY **Silvertowns**

Five New Wells Boost Production In the Panhandle of Texas

By John Power
N. P. N. STAFF WRITER

TULSA, Aug. 17

LACKING any wells of their own of anything more than passing interest, Oklahoma and Kansas passed the buck to the Texas Panhandle to turn in new Mid-Continent producers of likely importance. Stepping into the ball with a healthy swing, the Panhandle responded with five wells with a total initial production of some 15,000 barrels. None was far enough from production, however, to serve as anything more than proof of the continuity of already known productive areas.

All of the five wells were in Gray county. Four were in the new part of the Bowers pool, already well known to followers of production news in the Panhandle. The remaining well was in the Finley pool, more recently discovered about two miles east of the Bowers area, and about three miles west of the LeFors area, opened up early in the spring of last year. The same granite wash pay, found around 2950 feet, serves as the productive horizon for both pools.

Panhandle production has been steadily climbing of late, reaching for the week ending August 15 an average of 122,600 barrels, the highest it has been for more than two years. With the most of the increase coming from the Bowers and Finley area west of LeFors, Gray county, the pipe lines serving this part of the Panhandle are beginning to show the strain. It is reliably reported that several of the purchasing companies are refusing new connections, possibly hoping in this way to avert some drilling until such time as the normal decline of the wells now in can relieve their lines.

With Oklahoma, the Oklahoma City pool continues as the focal point for most eyes. A new well, but partially drilled in for a production of some 60 barrels an hour, bringing the total number of oil wells to 11, and the field's total daily production for the 24 hours ending seven a.m. August 17 to 36,665 barrels. This in spite of the fact that the next to the last well completed, the Indian Territory Illuminating Oil Co.-Foster Petroleum Corp. No. 1 S. Bodine, NW of 30-11N-2W, has fallen to but 1000 barrels per day in the last 48 hours. This is the well completed last week in the Siliceous lime for 200 barrels an hour initial.

This well, practically in the heart of the field as it is now developed, is giving rise to some fears for the longevity of the other wells. Water increased as the oil declined, rising during one 24-hour period from 824 barrels to 2319 barrels. The oil decline during this same period amounted to a loss of 1791 barrels in the well's output.

The well which is so fast going "hay-wire" is a diagonal southeast offset to the discovery well, in so far as its location permits. The discovery well, center of the SE SE of 24-11N-3W, is on a 40-acre location, while the No. 1 Bodine is staked on the regular ten-acre basis. The 40-acre location idea has rather gone by the boards in the Oklahoma City pool, all new locations being made on the 660-foot basis. The discovery continues an erratic decline, making at the present time some 1400 barrels, accompanied by about 600 barrels of water.

THE action of the water produced with the oil in some of the wells of the field has caused many a wrinkled forehead. Instead of slowly but steadily increasing, as is normally the action of edge water, the production figures often show a sharp decrease in the amount of water.

It is this fact which gives rise to the belief that possibly the water may be exhausting, and instead of being the edge water of the hydrostatic head back of the oil, may in reality be connate water, trapped in the lime at the time of the deposition of the younger beds, and therefore of comparatively limited amount. Future action of the Bodine well undoubtedly will throw more light on this highly speculative topic.

The field's new well, Shell Petroleum Corp. No. 2 Petty, SW NE of 30-11-2W, is now the farthest southeast oil well of the field. It is a direct offset to the Sinclair-Amerada No. 1 Kinter, the famous "gasoline" well, and is a half mile due south of the Prairie-Slick No. 1 Hiddleston, on the east edge of the pool as it now exists.

Fishing jobs, incident so far to the completion of nearly every well in the pool, have delayed this well for some time. The job but recently cleaned up, the well was drilled to a total depth of 6545, production steadily increasing until it has reached the 60-barrel per hour rate. The well is to be deepened still further into the lime.

The No. 1 Kinter, south offset to the new well, is the gas well recently shut in by the Sinclair for deepening to the siliceous lime. Efforts to kill the gas have been but temporarily successful. Introduction of water into the gas sand by the lubricating method, although able to reduce the pressure from 2000 pounds to less than 400 pounds was not a sufficiently deadly method to prevent the well coming to life when agitated by the fishing for the tools which must be recovered before the well can be deepened.

The operators fear to use mud to kill the gas because of the likelihood of lodging the lost tools so firmly that they cannot be recovered. The well is, however, still shut in, as is the Indian Territory Illuminating Oil Co. No. 1 Watters, a mile to the northwest. Both of these wells are considered as probable lime producers when deepened about 200 feet.

Outside of the Oklahoma City pool, the state seems incapable for the moment of stirring from its summer lethargy long enough to provide any real news. Operators are still poking holes down along the edges of the Seminole pools with but fair success. Such new areas as have been opened with more or less of a flourish of late have either petered out entirely, or they have reached the state where further drilling is required before their true importance can be revealed.

KANSAS, after getting over for the moment its slight case of the whatailsit when the Sedgwick county field was discovered, is rocking along in much the same manner as Oklahoma. Ellis county is getting considerable play, with fair results from scattered chat production, but without so far turning in anything of really imposing proportions.

Of the more recent wells to attract attention, the McPherson county wildcat of the McPherson Oil & Gas Co. in the center of the NW NW 18-19-2W, has proved more or less of a disappointment. The well, which was gassing and spraying oil from the chat encountered at 2972-3040, was

shut in to await the erection of tankage. When opened, but 200 feet of oil was found in the oil, and what was worse news, a small amount of water. Six-inch pipe was set at 3040, and the well is drilling deeper.

* * *

Notes on the Week

An interesting showing on the west side of the Earlsboro pool has been reported in the Twin State Oil Co. No. 1 McGruder, NE of 7-9-7. Top of the Wilcox and the total depth are the same, 4319. The hole has 3500 feet of oil standing in it while tankage is being built.

Gypsy Oil Co.'s No. 3 Green, NE SE of 17-7-4, the big Hunton lime well which momentarily centered attention on the connecting strip between the St. Louis and Pearson Switch pools, staged a comeback during the week, stepping its production back up to around 4800 barrels daily, after declining rapidly to 60 barrels an hour.

* * *

The increased wildcatting of the past few months has reached Noble county with several locations. The most recent of these is in the NW SW of 2-22N-1E, northeast of Perry. The owners are Washoma Petroleum Co., Peerless Oil Production Co., and Prairie Oil & Gas Co.

* * *

A comeback staged by the Shell Petroleum Corp. No. 2 Community has kept the Greenwich townsite, Sedgwick county, clear of dry holes for the time being at least. When first completed the well swabbed but 40 barrels daily, together with considerable water. Further swabbing however raised the production to better than 300 barrels per day. The Greenwich pool is a chat production five miles northeast of Wichita, and about seven miles east of the Valley Center pool.

A.P.I. Field Pipe Code Is Published

DALLAS, Aug. 17.—The American Petroleum Institute code covering recommendations on the care and use of pipe, prepared by the special committee on the standardization of oil country tubular goods is now available in final printed form, according to Carl A. Young, director of the division of standardization. It is known as American Petroleum Institute Code No. 5, First Edition, July, 1929, "A.P.I. Code of Recommended Field Practice—Care and Use of Oil Country Tubular Goods." The price is 75 cents, but quantity prices will be quoted on application at the division headquarters, 1508 Kirby building, Dallas.

The code, in its final form, represents work done by the committee over several years. The recommendations first were made at the annual meeting of the institute in Tulsa, in December, 1926, and were printed in tentative form in the annual bulletin. Additions and revisions were incorporated at subsequent meetings, and the code formally was adopted by the board of directors at the annual meeting at Chicago in December, 1928.

The code contains 42 pages, punched to fit the standard three-ring binder, and is illustrated with 45 line drawings and photographs. It covers the advantages of A.P.I. tubular material, with graphical comparisons of the clearances for various casing strings. It contains also rules for running casing, with sections on unloading and handling, strength of casing, causes of failure in drill pipe and preferred methods of handling tubing and the reconditioning of A.P.I. tubular material. Tables of major dimensions showing setting depths with various factors of safety also are included.

Charles Mercer

Continental Transfers Mercer to Midland

HOUSTON, Aug. 16.—Charles Mercer, formerly of the Continental Supply Co., at Wichita Falls, was transferred to Midland, effective Aug. 1, in charge of the West Texas credit department. Mr. Mercer has been connected with the Continental a number of years. He was at one time stationed at Pampa, in the Texas Panhandle, and later in the Fort Worth district office.

Before joining the Continental, Mr. Mercer was office manager of the Sinclair Oil & Gas Co., at Fort Worth, in Ranger development days. He was previously chief scout of the Gypsy Oil Co., Gulf subsidiary in the Mid-Continent, at Tulsa. Before entering the oil business, Mr. Mercer was private secretary to United States Senator Robert L. Owen.

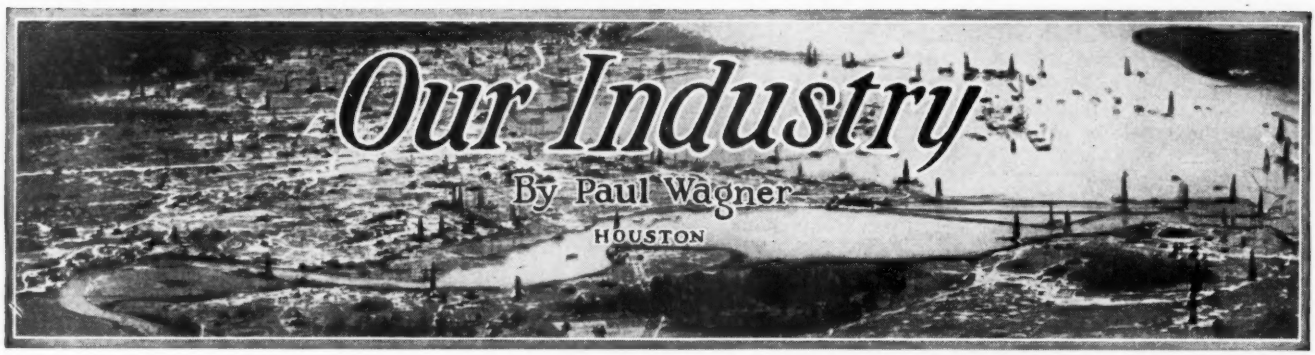
CLEVELAND, Aug. 16.—Daily average crude production of the Lago Oil & Transportation Co. in Venezuela was 85,259 barrels for week ended Aug. 9, according to the Wall Street Journal.

Homer Joins Bennett Production Forces

HOUSTON, Aug. 17.—Announcement is made of the resignation of Charles H. Homer from the Rycade Oil Corp., to become general superintendent of development and production for the Mills Bennett Production Co., with Houston headquarters. Mr. Homer had been in charge of Atchafalaya development for the Rycade in southern Louisiana. Before joining the Rycade he had been general superintendent of the Rio Bravo Oil Co., Southern Pacific subsidiary, in Gulf Coastal Texas.

CLEVELAND, Aug. 15.—David A. Locke will become general superintendent of pipe lines for the Old Dutch Refining Co. at Muskegon, Mich., on Aug. 15. He comes to this position from the pipe line department of the Natural Gas Corp. at El Dorado, Ark. Mr. Locke is the eldest son of Geo. D. Locke of the Barnsdall Refining Co.

Charles H. Homer



The joker now bobs up in the deck with regard to the application of the four cents a gallon gasoline tax levied under a recently enacted Texas Statute. All gasoline users are required to pay the tax, but the new law does not make it easy for the consumer to obtain refunds on exemptions. Fuel used in farm tractors, stationary engines, aircraft and motor boats, is exempt. In fact, any usage for purposes other than in motor vehicles traversing highways makes consumers entitled to refunds.

Here are some of the requirements to obtain refunds:

The purchaser must fill out an invoice at the time of purchase, showing amount, price, purpose and so forth, the regular price being paid for the gasoline. Before the 25th of the succeeding month, the buyer must report to the comptroller the number of gallons bought and the amount of refund expected. Then the comptroller's department will mail claimant an affidavit-account form on which to give sworn information for filing not later than two months from date of purchase. A filing fee of $1, plus notarial cost to claimant, thereupon applies.

After investigation by the state to find the claim valid a refund warrant that must be cashed within 60 days will be issued. The law also provides that no refund shall be made where gasoline is used later than six months from purchase.

* * *

W. W. Ward, assistant in the Laredo district office of Magnolia Petroleum Co., under Supt. A. H. Proctor, has been transferred to Electra, Texas, where he will have a similar position with Supt. J. C. Shaw.

* * *

Radio station KFDM, owned by the Magnolia Petroleum Co., at Beaumont, is installing new equipment at a cost of approximately $25,000, according to announcement made by the management. The virtually new station is to be ready for KFDM's fifth anniversary celebration scheduled for Oct. 5.

Starting out on a schedule of two nights a week and two noonday concerts, additional periods of broadcast have been added from time to time until at the close of its fifth year of operation KFDM may be heard every day and every night at most any hour of the twenty-four.

* * *

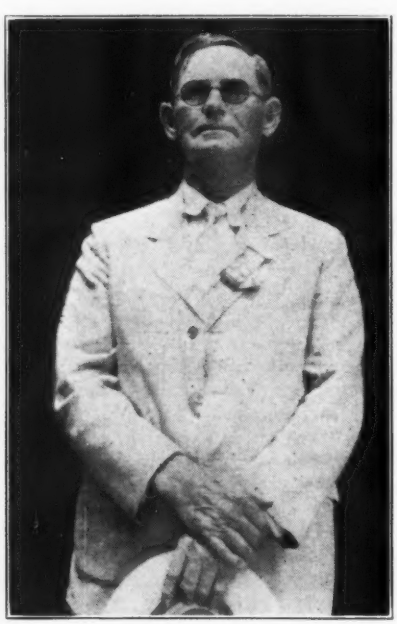
L. P. St. Clair, executive vice president of Union Oil Co. of California, Los Angeles, has been spending his vacation in Seattle and in northwestern territory.

* * *

T. T. Walkinshaw, formerly connected with the Mexican Gulf Oil Co., at Tampico, is now on his way to Maracaibo, where he was transferred to the jurisdiction of the Venezuela Gulf Oil Co.

* * *

Jess T. Hamilton of the land department, Sun Oil Co., Dallas, combines scouting work with his other activities in a wide range of territory in east and central Texas. Mr. Hamilton is recognized in the territory he covers as the dean of the land and scouting fraternity. His connection with the Sun organization dates back over a period of many years, in which he has been active in the Mexia-Powell, Luling fault zone and Interior coastal plain regions of Texas.



Jess T. Hamilton

H. C. O. Clarke of the petroleum engineering department of the Pure Oil Co., with Chicago headquarters, recently returned from Venezuela, where he had been stationed for 16 months in connection with operations of the subsidiary Orinoco Oil Co.

* * *

Fred C. Adams has been elected treasurer and a director of the General Petroleum Corp., of California, succeeding Rodney S. Durkee. Mr. Durkee's appointment as comptroller of the parent Standard Oil Co. of New York was recently announced. Mr. Adams has been identified with the General's organization since 1910, when he started out as an accountant.

* * *

E. A. Sessums, formerly of the Pure Oil Co.'s land department at Fort Worth has been transferred to West Texas, where he will scout Pecos county territory. He succeeds L. R. Cobb. H. A. Jones has been sent to Louisiana to scout territory formerly covered by E. J. Pitre, transferred to the Houston land office. Ted Dreher, field engineer, takes over Jones' work at Fort Worth.

* * *

R. V. Whetsel, manager of Empire Gas & Fuel Co. operations in the Tampico district of Mexico, spent a month's vacation with his family at Boulder, Colo. J. O. Isakson has been in charge of the Empire's Tampico offices in Mr. Whetsel's absence.

* * *

R. B. Mitchell, representing the Midwest Refining Co., in West Texas, has been transferred from Abilene to Midland.

* * *

Abe Silverberg, formerly a chemist for the Pierce Oil Corp., at Tulsa, has replaced H. Fowler, resigned, at the Tampico plant of the Pierce interests. Mr. Fowler is now connected with The Texas Co., at one of its South Texas plants.

* * *

G. L. McCormick will be superintendent in charge of operations at the natural gasoline plant being built by Humble Oil & Refining Co., near Iraan, in the Yates field of Pecos county, Texas. Ben Calhoun, assistant general superintendent of Humble

gasoline plants, is overseeing construction work. The plant will operate on gas found in the upper part of the Yates field structure.

* * *

Paul T. Seashore, production manager of the Louisiana Land & Exploration Co., Houston, accompanied by his brother, Junius Seashore, West Texas scout for the Peerless Oil & Gas Co., spent their vacations motoring to Fresno, California.

* * *

C. R. Minor, third vice president of the Gulf Refining Co. of Louisiana, in charge of its activities at Shreveport, has been visiting in Honolulu, accompanied by Mrs. Minor and their son, Edwin Carroll Minor.

* * *

C. C. Beem, who recently succeeded Paul Grimm as general manager of Geo. F. Getty, Inc., Los Angeles, is a graduate of the University of Iowa. For the last five years he has been identified with the Standard Oil Co. of California and its subsidiary, the California Co.

Mr. Beem joined the California Co.'s land and lease department at Denver in 1924, later was sent to Texas and finally transferred to Bakersfield, Cal. In 1927, he went to the Standard Gasoline Co., when it was organized as a subsidiary of the parent corporation.

* * *

Frank C. Lourie, formerly manager of the Metropolitan Oil Co., in the Tampico district of Mexico, is now vice president and general manager of the Lago Petroleum Corp., subsidiary of Pan American Petroleum & Transport Co., at Maracaibo, Venezuela.

* * *

A group of Alpine business men have grouped together for the drilling of an oil test on a 40-acre tract in the Shipley area of Ward county, Texas, near the town of Grand Falls. G. H. Storey heads the group, which is composed of R. W. Bourland, F. M. Steere, Eric Leus, W. A. Buchanan, J. E. Doddridge and William Ramsirer.

* * *

F. K. Foster, formerly in charge of the Wichita Falls office of Sinclair Oil & Gas Co., as district geologist, will operate in similar capacity at San Angelo, where West Texas headquarters have been established. N. B. Larsh will handle scouting out of San Angelo. L. L. Hardin, formerly of Wichita Falls, has been transferred to the Fort Worth geological organization.

* * *

Val T. Billups, San Antonio district land man for Shell Petroleum Corp., has returned to Texas after a honeymoon trip in the north and east. Mr. Billups and Miss Dorothy Graf of Evanston, Ill., were married June 29. They reached San Antonio from New York by way of Galveston, making a boat trip part of the way.

J. Hoyt Lewis, Abilene district scout of the Union Oil Co. of California, is back on the job again after an operation at Mayo Bros. sanitarium, in Rochester, Minn. Mr. Lewis was identified with Marland Production Co., in West Texas, before joining the Union organization.

* * *

B. C. Clardy is now in charge of the central division crude oil department of Shell Petroleum Corp., at Dallas. He was formerly prorating umpire in the Yates field of Pecos county, West Texas, before appointment of Ray Richmond.

* * *

Glenn D. Robertson, formerly of the geological department of the Associated Oil Co., Los Angeles, is now identified with the Pacific Coast organization of the Cities Service Co., a Henry L. Doherty organization. He is a native of Spanish Fork, Utah, where he was born in 1896. His B. S. degree in chemistry and his M. S., in mining, were obtained from the University of Utah.

After experimental station work for the United States Bureau of Mines at Salt Lake City, in 1919-1920, he joined the geological staff of the Associated in 1920, remaining there as assistant to Joseph Jensen until his recent resignation. He is a member of the Branner (geological) Club of Los Angeles and the American Institute of Mining & Metallurgical Engineers.

Continental Oil Co. Personnel in Texas Is Regrouped

HOUSTON, Aug. 15.—Reorganization of the Continental (Marland) Oil Co. personnel in Texas and New Mexico has been effected by the establishing of five district offices at Jal, N. M., Wichita Falls, Borger, Houston and Big Spring, Texas.

Harold Vance

The several districts will be under the Fort Worth division management of George H. McIntyre at Fort Worth. M. H. Shanahan, in charge at Wichita Falls, comes to the new Continental management from the old Continental Oil Co., of Denver, and Lloyd North of Houston was formerly identified with Gulf Coastal geological affairs of The Texas Co. Mr. North's appointment was recently announced in NATIONAL PETROLEUM NEWS.

Others in charge of district offices are drawn from the personnel of the old Marland Production Co., where they had served previously under Mr. McIntyre. They are H. B. Hurley at Big Spring, J. E. Warren at Borger, Texas, and Harold Vance at Jal, New Mexico.

Walter N. Alexander, vice president of the old Continental at Wichita Falls, resigned after merger of the old Continental Oil Co. of Maine and the Marland Oil Co., into the new Continental Oil Co. of Delaware.

H. A. Glenn of the old Continental organization stays with Mr. Shanahan as chief clerk at Wichita Falls and John Kay also remains there as geologist.

D. D. Christner is chief geologist and Stacy B. Dorn heads the Fort Worth land department. F. M. Jacobsen is chief clerk to Mr. McIntyre at Fort Worth.

M. H. Shanahan

Success of Kettleman Hills Agreement Certain as More Operators Sign

By Jack N. Westsmith
N. P. N. STAFF WRITER

LOS ANGELES, Aug. 16

ASSURANCE of entire agreement between operators interested in the three domes of Kettleman Hills seemed certain today as only Milham Exploration Co. had not signified its intention, of concurring in the plan drawn up by the Kettleman Hills conservation committee several weeks ago.

Several additional signatures have been obtained to the ones initially agreed upon as necessary to the success of the plan. Bolsa Chica Oil Co. and "Scotty" Armstrong, a permittee, have signed the agreement under a reclassification of the Class A or preferential acreage. The Standard Oil Co., Shell Oil Co., and George F. Getty Inc., who jointly held the Armstrong permit, agreed to the redivision of the permit which straddles the structure from east to west.

Milham Exploration Co. is coring ahead below 7218 feet in its Kennedy No. 1 on the north dome of Kettleman Hills. This is more than 100 feet below the depth from which the discovery well, Milham Elliott No. 1 came in, but as the Kennedy is known to be down structure from the discovery well little anxiety is caused by the failure of the well to pick up better showings. Gas and oil showings have been in evidence for the past 400 feet.

Standard Oil Co. is reported to be running 2½-inch tubing in its No. 78 well in section 7, 22-18 to 6012 feet. The well is swabbing at 1900 feet with a showing of gas reported. Standard's No. 81, which was completed several weeks ago for an initial production of 800 barrels of 65 gravity oil and 20 million cubic feet of gas has increased its output until at the present time approximately 1000 barrels of oil and 22 million cubic feet are being produced.

An interesting test will be made of the Kettleman Hills area within at least two weeks unless unusual difficulties are encountered. This test will be made by Marland Oil Co.'s well No. 12-8 which is drilling at 6760 feet in good looking sand. Marland engineers expect to go to at least 6860 feet before making a production test.

This test is important in that it is expected to definitely prove the level of the oil producing horizon at Kettleman Hills. Geologists are, however, agreed that the greatest quantity of oil will be obtained from the lower Temblor sands at about 7000 feet.

LOS ANGELES, Aug. 17.—A protective string of 22½-pound, 5¾-inch casing has been set at 9144 feet in Shell Oil Co.'s deep test of the Long Beach field. Shell engineers state that as soon as the Mining Bureau has checked the water shutoff drilling will proceed, although indications at the present time are none too favorable for obtaining a commercial producer in the Nesa No. 11.

Previous completions in this area with the exception of the discovery well are thought to be producing from the upper sand that is known to contain a heavy gas pressure. Shell Oil Co.'s Armstrong well No. 1, which blew in while the cement was being drilled out, is now deepening to tap the oil sands and it is thought that, with the completion of Marland's well, Standard will kill its No. 81 to go in search of a more profitable sand.

Richfield Oil Co. is reported to have leased 3000 acres in Kreyenhagen Hills, in township 22-16. This property lies almost due east of Coalinga and west of the North end of Kettleman Hills. The property is outside federal jurisdiction having been patented years ago. Richfield will make a deep test of the district which up until this time has yielded from only shallow depths and then in small quantities.

Production at Santa Fe Springs picked up during the past week with the completion of 9 wells and the recompletion of 3 others. The total addition to the daily average production from the field was about 35,000 barrels a large part of which was offset by natural decline of O'Connell zone producers.

Of the new additions to the producing wells eight were completed in the O'Connell zone for an average of 2,690 barrels. A total of 65 wells are in the O'Connell zone and of these 27 are drilling in above the water shut-off, 16 are cemented over the oil sand, and 22 are drilling below the shut-off or are preparing to complete in this sand.

The remaining six wells were completed in the 3rd. Clarke zone for an average of 2,603 barrels. Unusual activity is expected for the near future among operators who have this deep sand as an objective and judging from the output of recent completions this zone is likely to prove very productive.

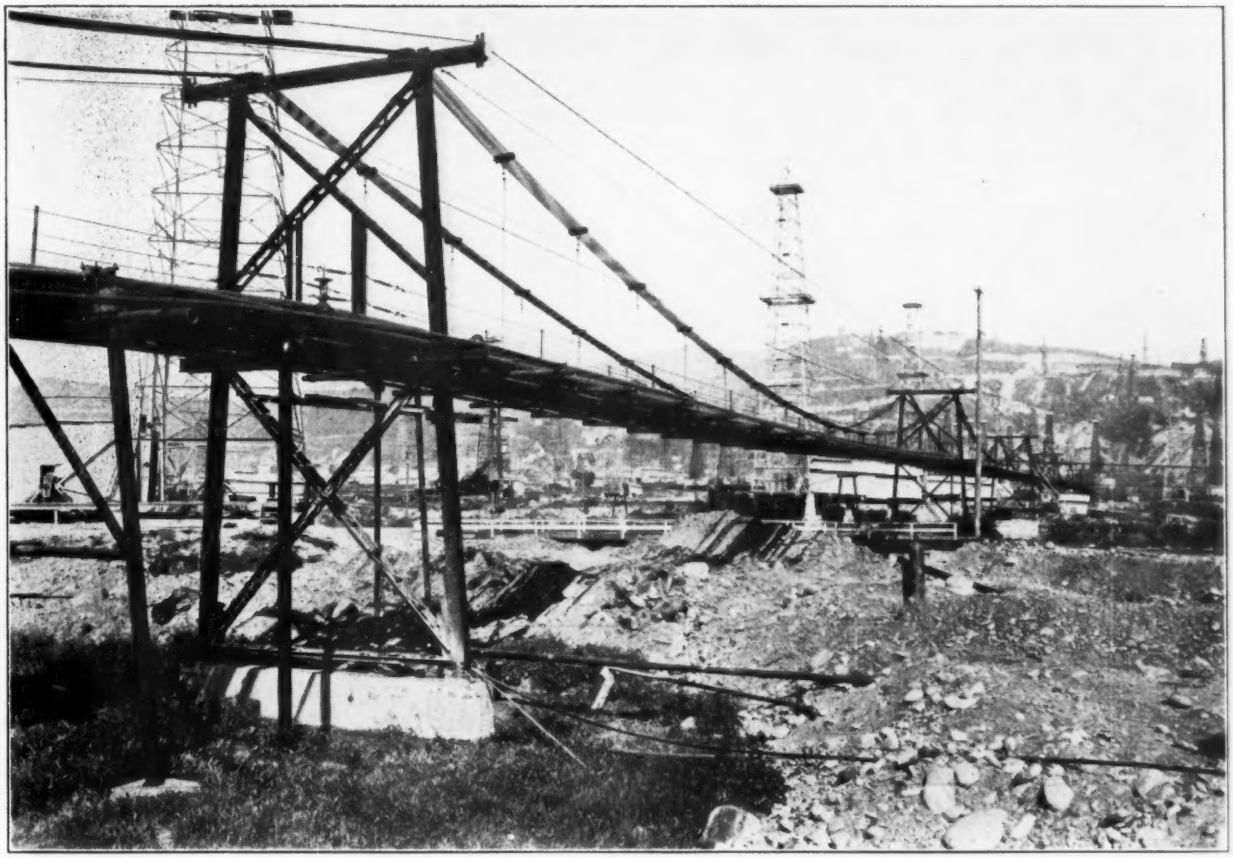
Associated Oil Co. finally obtained a producer in its Dallugge No. 7 on the western flank of the Santa Fe Springs field. This well, which proved such a bad actor when an attempt was made to shut it off above the lower Clarke sand, was finally completed at 8100 feet for 1997 barrels of fluid, 28 per cent cut.

The Texas Co. secured two fair sized producers from the 3rd. Clarke sand by the completion of its Steinley No. 6 from 8050 feet for 5000 barrels, 50 per cent cut, and its Lamb No. 2 at 7990 feet for 3965 barrels, very little cut. Production from the 3rd. Clarke sand was second in amount to the output from the O'Connell zone during the past week. Production by zones was as follows:

ZONE	PRODUCTION	NO. WELLS	AVERAGE
Nordstrom	19,090	24	792
Buckbee	22,412	44	509
O'Connell	210,245	85	2,473
Upper Clarke	0	0	0
3rd Clarke	31,374	17	1,845

Of the 284 projects heading for zones below the Meyer at Santa Fe Springs, 99 are above or in the Nordstrom and Buckbee sands and 126 are drilling below 6000 feet.

Several production tests are expected within the coming week on wells located in the Ventura Basin. Southern Exploration Co. is expected to drill out the cement in its Twitchell No. 1 of the Summerland field within a day or so. That operators have not entirely given up hope of obtaining some return for their investment in the Santa Barbara Mesa field is evidenced by the continued search of a deep sand in this area by Roggie



Suspension bridge built to carry pipe lines across the river bottom in the Ventura Avenue field in California

and Coffman two Independent operators.

Associated Oil Co. is reported to be making plans to drill several wells on land belonging to the Southern Pacific railroad in the Summerland district. Outcome of the coming production test on Southern Exploration Co.'s Twitchell No. 1 will be an important factor in developments of this land although the Twitchell well is not a deep test of the area.

At least 11 wells will be drilled on tideland permits in the Elwood field within the near future. Pacific Western Oil Co., Bankline Oil Co., Honolulu Consolidated Oil Co., and Rio Grande-Barnsdall interests all have piers in some stage of construction and several derricks have been erected to probe the offshore possibilities of the Elwood structure.

Leases 3000 Acres West Of Kettleman Hills

SAN FRANCISCO, Aug. 17.—Negotiation has been completed for the lease of 3000 acres by the Richfield Oil Co. in the Kreyenhagan Hills from Kreyenhagen's Inc., which land is located seven miles south of Coalinga, Fresno county. The land is in the same district as the famous Kettleman Hills.

Richfield is reported to have paid $250,000 cash bonus for the lease in addition to contracting to pay a one-sixth royalty in the event of the discovery of oil in the 20 wells to be drilled on the extensive property, which is almost surrounded by proven land.

Drilling operations are to commence as soon as necessary equipment can be put onto the ground. The land is seven miles west of the Elliott No. 1, the Millham discovery well in the Kettleman Hills.

Continental Moving Tanks

PONCA CITY, Aug. 16.—Thirteen crude oil storage tanks, seven of the 55,000-barrel size and six of 80,000-barrel size, are to be added to the Continental Oil Co. tank farm at Ponca City. The tanks are to be brought from the Continental's properties at Borger, Tex.

Twenty-two crude oil storage tanks will be left at the Borger properties after the removal of the 13 to Ponca City.

Completions in California, Week Ended August 10, 1929

Long Beach

Company	Well No.	Location	Depth	Init Prod.
Delaney Pet. Corp.	Just 1	....	6745	100
Richfield Oil Co.	Duncan 4	....	7104	1580
Santa Fe Springs				
Getty Geo. F.	S. F. No. 32	....	6236	3500
Getty Geo. F.	S. F. No. 34	....	6950	5320
Shell Oil Co.	Slusher B-2	....	7770	2400
Shell Oil Co.	Slusher 13	....	6845	430
Shell Oil Co.	Patton Wilson No. 9	....	6585	650
The Texas Co.	Wickman 2 B	....	5315	1300
The Texas Co.	Weaver No. 4	....	6843	3375
The Texas Co.	Steinly No. 6	....	8050	5000

Ventura Avenue

Company	Well No.	Location	Depth	Init Prod.
Associated Oil Co.	Lloyd 67	....	7512	1676
M. K. & T. Oil Co.	Perry 1	....	7751	530
Maricopa Flats				
North Amer. Cons. Oil Co.	Lincoln No. 1	....	2366	400
Mt. Posa				
Pet. Securities	Glide 13	....	1718	shut in
Kern Front				
Chanslor-Canfield	Midway Oil Co. No. 23	23, 28-27	2198	210

Completions in Oklahoma and Kansas, Week Ended August 17, 1929

OKLAHOMA

Beckham County

Company	Well No.	Location	Depth	Init. Prod.
Coogan	1	SWc NE 35-9-25 W	T.D. 2808	Dry

Carter County

Prairie	1	NWc SE 30-1-3 W	2760-2823	40
Cotton Belt	9	NW NE SW 10-4-2 W	1787-1961	165

Cotton County

Everts	1	NWc NE 14-2-10 W	T.D. 2290	Dry
Stewart-Wiley	1	NWc NE 14-2-11 W	T.D. 2013	Dry

Creek County

Franchot	31	SW NE SW 17-17-12 E	1418-1492	15
Pure	22	SWc NW NE NE 5-18-7 E	2604-2652	70
Pure	5	NEc NW 20-18-7 E	2508-2549	20

Garfield County

Oil States	1	SW NE NW 14-23-3 W	T.D. 5168	Dry

Hughes County

Steckleburg et al.	1	NWc 19-9-10 E	2580-3015	7M
Magnolia	5	SWc NW 17-5-8 E	2665-2730	225

Kay County

Holden	1	C NW SW 19-28-1 E	1025-1030	¼M

Kiowa County

Alexander et al.	1	SEc SW SW SE 18-6-16 W	T.D. 510	Dry
Alexander et al.	2	NEc SW SE 18-6-16 W	T.D. 510	Dry
Cooper-Terhune	2	SEc NE NW NE 19-6-16 W	T.D. 510	Dry

Logan County

Cosden	1	NEc NW 31-19-4 W	4952-5955	5085

Marshall County

Hewitt et al	1	C NE 6-6-5 E	T.D. 760	Dry

Muskogee County

George et al	1	CWL SW SW 33-14-16 E	T.D. 1865	Dry
Aggas et al	1	CWL NW SE 28-16-15 E	1492-1503	3¼M
Rose	11	NEc SE NE NE 30-15-16 E	1207-1225	8
Price et al	2	SWc NW NW NW 29-15-16 E	1208-1216	30
Troutt Drlg	1	NEc SE NW 8-15-15 E	1652-1664	15
Mack Drlg	1	SEc NE NW 8-15-15 E	1651-1670	15
Babcock Bros	1	SEc SW NE 8-15-15 E	1616-1624	OWD 10
Musselem	4	SWc NW SE NE 4-13-19 E	1350-1370	20
R & R Drlg	1	SWc 17-13-16 E	1005-1017	¼M

Okfuskee County

Champlin	3	SWc 14-11-11 E	1677-1682	12
Champlin	14	NEc 22-11-11 E	1639-1663	8
McMahon-Carey	1	NEc NW 32-12-10 E	3090-3173	6M
Abbott et al	1	NEc NW 18-12-11 E	2807-2810	60
Dixie	2	SWc 8-13-10 E	2675-2805	20

Okmulgee County

Kirkland-Son	3	NW NE NW 20-15-13 E	1458-1662	10
Marquette	6	NWc NE NE 22-13-12 E	T.D. 2926	Dry
Laurel	3	CEL SE SE 10-15-14 E	T.D. 1560	Dry

Osage County

Stanley et al	2	SWc NW NW NW 15-25-8 E	T.D. 2506	Dry
Duffield-Howard	1	SWc NW 33-26-7 E	T.D. 3101	Dry
I. T. I. O.	410	SEc SW SW NW 8-24-9 E	1792-1809	8½M
Stoner Bros. et al.	4	CSL NW 31-24-9 E	2134-2151	15
Harland	86	NW SW SE 21-25-11 E	1727-1742	15

Pawnee County

McMan et al	1	NW SW SE 27-20-9 E	1890-1900	¾M
Short-Mann	1	NEc 22-20-9 E	1921-1943	35

Payne County

Magnolia	2	NWc SW 10-18-5 E	2915-2957	12
Pure	1	NE SW NE 5-19-5 E	3603-3625	10

Pontotoc County

Texas Pacific	1	NWc NE 30-5-5 E	2414-2419	90
Transcontinental	1	SE SW NW 19-5-5 E	2359-2369	80
Sinclair	2	SEc NW 6-4-6 E	T.D. 1280	Dry

Pottawatomie County

Company	Well No.	Location	Depth	Init. Prod.
Laurel	4	NW NE NW 18-8-5 E	T.D. 4396	Dry
Prairie et al	2	NE SE NE 17-7-4 E	4095-4133	1665
Prairie et al	1	NEc 17-7-4 E	4043-4078	600
Prairie et al	2	SEc NE NE 17-7-4 E	4180-4212	325
Gypsy	1	NWc SW 9-8-5 E	4111-4117	1540
Magnolia-Gypsy	1	NWc NE 20-8-5 E	4114-4115	215
Minnehoma	2	SE NE SE 16-7-4 E	3683-3690	450
Empire	1	NW SW SE 17-7-4 E	4245-4252	370

Seminole County

Carter et al	1	SW NE SW 11-9-6 E	4136-4153	1410
Mid-Continent	7	SWc NE 5-7-7 E	4219-4231	3470
Independent	4	CNL SW SW 13-7-6 E	3316-3335	115
Gypsy	17	SW NE SW 23-7-6 E	3094-3127	31M
Texas	11	SW SE SE 18-5-8 E	2525-2571	490
Prairie-Slick	1	NEc SW 27-7-6 E	T.D. 3226	Dry
Prairie-Slick	5	NWc SW 27-7-6 E	T.D. 3416	Dry
Magnolia	1	SW NE NW 8-9-6 E	T.D. 4375	Dry
Gypsy	3	SW SE SW 5-8-6 E	T.D. 4509	Dry
Pure	8	NEc NW 10-8-6 E	T.D. 4334	Dry
Continental	1	NE NW SE 27-7-6 E	T.D. 3264	Dry
Empire	2	NE NW NE 27-7-6 E	T.D. 3655	Dry
Empire	3	NW SE NE 27-7-6 E	T.D. 3310	Dry
Empire	4	SE NW NE 27-7-6 E	T.D. 3233	Dry

Stephens County

Magnolia	1	NEc SE 9-1-5 W	T.D. 5465	Dry
Pace et al	1	SEc SW NW SE 21-2-7 W	1728-1732	55

Tillman County

Allen Bros	1	NWc SE 13-1-17 W	T.D. 835	Dry

Tulsa County

Operators	1	C SW 4-19-11 E	T.D. 2585	Dry

Wagoner County

Western Drlg. & Equip.	1	SEc NE NE SW 34-18-17 E	T.D. 860	Dry
Loesing et al	2	NW SW NE 16-18-16 E	T.D. 679	Dry

KANSAS

Butler County

Empire	11	SW NE SE 22-27-5 E	2724-2769	265

Greenwood County

Bisagno et al	2	SWc NE 9-25-13 E	1520-1535	25
Empire	2	SEc NW 9-25-13 E	1525-1529	100
Smith-Polhamus	1	SEc NW 10-24-10 E	T.D. 2630	Dry
Mohawk	5	C SW NW 7-27-11 E	T.D. 2275	Dry

McPherson County

Helmerick-Payne	1	NE SE SW 23-21-2 W	T.D. 3506	Dry
Tatlock et al	1	C SW NE 32-20-1 W	T.D. 3612	Dry
Brown et al	1	C NE 18-17-1 W	T.D. 3371	Dry

Reno County

Empire	1	SWc 35-25-4 W	T.D. 4310	Dry

Saline County

Coastal	1	C NW 23-14-5 W	T.D. 4005	Dry

Sedgwick County

Shawver et al	1	SE SW SW 10-28-1 E	T.D. 3557	Dry
Simmons et al	1	NE NW NE 22-26-1 E	T.D. 3625	Dry
Barnsdall	1	NE NW NW 22-26-2 E	2920-2928	100
Ramsey et al	1	SEc SW SW 15-26-2 E	2939-2940	380

Sumner County

Gypsy	2	C SW NE 23-34-2 W	T.D. 4569	Dry

Woodson County

Kansas	2	NW SE SW 35-23-14 E	1660-1667	10

New Field Operations in Oklahoma, Kansas, North, North Central, East Central, Panhandle and West Texas, Week Ended Aug. 17, 1929

OKLAHOMA

Carter County

Company	Well No. & Farm	Location	
Ven Mex	2-Dixon	SW SE NW 30-1-3 W	

Cotton County

Barnsdall	5-Lawler	NWc SW NW SE 33-1-10 W	

Creek County

Empire	2-Bigpond	NEc SW NW 36-15-7 E	
Peters	5-Arsyalee	SW SE NE 21-16-8 E	
Texas Pacific	5-Beaver	NW SW NW 17-16-9 E	OWD
Texas Pacific	3-Beaver	SW NW NW 17-16-9 E	
Sinclair	23-Keys	SEc NE SE SE 28-17-7 E	OWD

Grant County

Champlin	1-Grabb	NW SE SW 36-28-3 W	

Hughes County

McCullouch	1	SEc NW 12-7-8 E	

Lincoln County

Billingslea et al	1-Davis	SE NE NE 28-17-6 E	

Logan County

Shell	3-Storey	SW SE SW 30-19-4 W	
Cosden	2-Gardner	NW NE NW 31-19-4 W	
Skelly-Indep	1-Elrod	NEc SW 31-19-4 W	

Muskogee County

Bryan	9-Barnett	NWc SW NE NE 8-15-15 E	
Mills et al	1-Kelly	CWL E½ NW NW 24-13-18 E	
Robinson Bros	1-Brown	SEc 18-13-16 E	OWD
Mazda	3-Jackson	CNL SE NW 8-13-16 E	

Okfuskee County

Champlin	10-Holmes	NEc NW 22-11-11 E	
Champlin	16-Carter	NW SE SW 15-11-11 E	
Shepard et al	1-Shepard	SE NW SW 3-12-10 E	

Oklahoma County

I. T. I. O. et al	3-Johnson	SEc NW 25-11-3 W	
I. T. I. O. et al	2-Johnson	NWc 25-11-3 W	
I. T. I. O. et al	3-Henning	SE SW SE 24-11-3 W	
I. T. I. O. et al	1-Fortson	SEc NE 24-11-3 W	OWD
I. T. I. O. et al	4-Trosper	SW SE SW 13-11-3 W	
I. T. I. O. et al	2-Fortson	SW SE NE 24-11-3 W	
I. T. I. O. et al	3-Bodine	NW NE SE 24-11-3 W	
I. T. I. O. et al	4-Bodine	NE NW SE 24-11-3 W	
I. T. I. O. et al	1-Speegle	SWc 24-11-3 W	
I. T. I. O. et al	1-Brokaw	SEc NE 13-11-3 W	
I. T. I. O. et al	1-Jennings	NEc SE 13-11-3 W	
I. T. I. O. et al	1-Mackey	NEc 26-11-3 W	
I. T. I. O. et al	2-Emmerson	NW NE NE 25-11-3 W	
I. T. I. O. et al	3-Watters	SWc NE 25-11-3 W	
Coline	2-Claur	NWc SE 25-11-3 W	
Sinclair	1-School	NWc NE 36-11-3 W	
Sinclair	5-Stamper	NW SW NW 30-11-2 W	
Sinclair-Amerada	2-Kinter	SWc SE 30 11-2 W	
Cromwell-Franklin	4-Trosper Park	SWc NE 13-11-3 W	
Cromwell-Franklin	5-Trosper Park	NE NW NE 13-11-3 W	

Okmulgee County

Sheridan	1-Friday	SEc NE NW 24-15-11 E	
Mathews	1-Hughes	NEc 21-16-11 E	
Kirkland-Son	4-Brooks	SWc SE SW 17-15-13 E	
Rebold et al	2-Brooks	CNL SW NE 6-15-13 E	

Osage County

McCune-Wormser et al.	3	SW NE NE 15-24-8 E	
Texas	8	SE NW SE 30-25-8 E	
Peters et al	6	NW SW SE 22-27-11 E	

Pawnee County

Superior	1-Brodell	NE NW NE 20-20-9 E	
Geraldine	2-Edminston	SE NW SW 30-21-9 E	

Payne County

Comal	2-Carr	SWc NE SW 9-19-5 E	OWD

Pittsburgh County

Empire	1-Williams	C NE SW 33-7-16 E	

Pontotoc County

McMan	1-Lane	NEc NW 30-5-5 E	
Shaffer	3-Chatman	C NW NE 36-5-7 E	

(*Continued on Page 55*)

New Field Operations in Oklahoma, Kansas, North, North Central, East Central, Panhandle and West Texas, Week Ended Aug. 17, 1929

(Continued from Page 54)

Pottawatomie County

Company	Well No. & Farm	Location
Prairie	1-Jordan	NW SW SW 9-8-5 E
Indep. et al	1-Null	SEc SW 35-8-4 E
Empire	1-McCouven	SWc NW 25-8-4 E
Indep. et al	1-Weldfelt	NE NW NW 2-7-4 E
Commerce Dev	1-Townlot	SWc SE SW SW 18-6-4 E
Texola	1-Townlot	NEc SE SE SE 13-6-3 E

Seminole County

Carter	1-McMan	NE SW SW 11-9-6 E
Sinclair	2-Warrior	NE NW SW 17-9-7 E
Sinclair	4-Coody	NE SW NE 18-9-7 E
Magnolia	4-Reed	SE NE NW 4-8-7 E
Twin State	3-Judy	CNL S½ 6-8-6
Magnolia	1-Scipio	SW NW NW 4-7-7 E
Magnolia	7-Reel	NE SE NE 22-7-6 E
Carter	3-Walker	SE NE NW 24-7-6 E
Skelly	1-Smith	NE SW NW 13-6-7 E
Blackwell	1-Fleet	NW SW NW 13-5-7 E
Denver Prod. & Ref.	1-Burk	SEc 36-5-4 E
Neustera et al	1-Cynda	NW SE SW 25-5-7 E
Blackwell	3-Fleet	SWc NW 13-5-7 E

Stephens County

Fisher-Bullard	1-Johnson	SW SE NW 17-1-8 W
American Pipe Line	9-Nigh	SWc SE NW 34-1-8 W
Pace et al	2-Watkins	NE SW SE 21-2-7 W

Tulsa County

Hoss et al	1-Harjo	SWc 2-19-10 E

Wagoner County

Scherer	1-Posey	NWc SW NE 5-17-18 E
Omega	2-Welden	SEc NE 35-17-17 E

KANSAS

Butler County

Marland	1-Harrison	SWc NW 22-27-3 E
Elem et al	1-Fowler	SE SW SE 35-23-4 E

Cowley County

Mid-Kansas	1-Harris	NEc 20-31-6 E

Elk County

Minnehoma et al	5-Ferguson	C NW SW 3-31-8 E	
Pure	16-Chaffin	NWc SW NW SE 14-31-10 E	OWD
Croft-Frazier	1-Woodward	C NW NW 32-30-11 E	

Greenwood County

Lassen et al	2-Carrington	CSL SW NE 6-25-9 E
Murphy et al	8-Olsen	NE NW SE 6-25-9 E
Texas	8-Edwards	SWc SE 21-23-11 E
Central	7-Cartwright	CWL NE NW 6-24-10 E
Phillips	3-Beal	NWc NE 28-23-11 E
Huston Okla	1-Hout	SE SW SW 11-24-12 E
Theta	1-Storrer	SE NE SW 15-22-12 E
Polhamus et al	1-Hill	NW SW NW 26-24-9 E
Parish et al	1-Johnson	NEc SW 22-24-12 E

Marion County

American	1-Urie	SWc NW 10-17-3 E

McPherson County

Travers et al	1-Cornelson	SWc 7-21-4 W
Dixie-Amerada	1-Flook	SW SE NW 1-20-2 W
McPherson	1-Sorenson	C SE 23-18-2 W

Morris County

Loomis et al	1-Gentes	CNL NE SE 16-16-7 E

Reno County

Kaiser-Murphy	1-Friessen	SEc NE 6-22-4 W

Sedgwick County

Coleman et al	1-Nelson	SEc 35-25-1 W
Bu Vi Bar et al	8-Wright	NE NW NE 12-26-1 W
Davis-Skelly	13-Wilson	NE SW NE 1-26-1 W
Bu Vi Bar et al	4-Reed	NW NE SW 1-26-1 W
Bu Vi Bar et al	1-Childs	SWc NE 7-26-1 E

TEXAS
NORTH CENTRAL AND EAST CENTRAL

Brown County

Company	Well No. & Farm	Location	Survey
French et al	1-Belvin	.....	Chaddick
Smith	2-George	.....	Chaddick
Hart	1-Allgood	Sec-6 Blk-58	Kirkpatrick
Humble	1-Kilgore	Blk-153	Mitchell
Hart	1-McHan	Sec-17 Blk-56	Duckworth
Humble	3-Hickman	.....	Kinsey
Humble	2-Munselle	Blk-3	Owenback
Humble	1-Johnson	.....	Johnson

Callahan County

Moutray	45-Hickman	Sec-149	BBB&C
Moutray	1-Owens	Sec-80	BOAL
Beams	5-Jackson	Sec-14	ET
Holden et al	2-Cavanaugh	Blk-98	Comal Co. Sch. Ld.
Bradstreet-Holden	6-Cavanaugh	Blk-98	Comal Co. Sch. Ld.
Humphries Bros.	10-Gray	Sec-40	D&DA

Coleman County

Taylor-Link	2-Barker	Sec-105	ET
Cont.-Atlantic et al.	6-Overall	Blk-700	Barkley
Drake-Cameron	1-Cameron	Sec-6 Blk-668	Trevino
Eastland et al	1-Newsome	Blk-270	Eubanks

Eastland County

Cranfill-Reynolds	1-Kellett	Sec-30 Blk-2	H&TC
Lone Star	2-Storm	Sec-470	SP
Tex-Wa & Simms	21-Lyerla	Sec-25 Blk-2	H&TC
Dale et al	1-Lyerla	Sec-25 Blk-2	H&TC

Erath County

Stone	1-Robertson	.....	Wood

Parker County

McCoy et al	1-Johnson	Sec-275	T&P

Shackleford County

Johnson	1-Moberly	Sec-58 Blk-11	T&P
French et al	1-Dawson et al.	Sec-184	ET
Reading Bros. et al.	1-Dawson et al.	Sec-185	ET
Owens et al	1-Davis	Sec-15 Blk-14	T&P
Simmons	.....	Sec-8 Blk-14	T&P
Roeser-Pendleton	10A88-Cook	Sec-88	ET
Roeser-Pendleton	11A88-Cook	Sec-88	ET
Roeser-Pendleton	12A88-Cook	Sec-88	ET
Roeser-Pendleton	13A88-Cook	Sec-88	ET
Gibson-Johnson	1-Bowman	Sec-80 Blk-12	T&P

NORTH TEXAS

Archer County

Humble	1-Parkey	Blk-44	Dallas Co. Sch. Ld.
Texas-Roberts	1-Blewitt	Sec-2	SP
Cont.-Cullum	1-Knight et al.	.....	Poitevant
Texas	1-Walsh	Sec-2416	TE&L
Humble	8-Kunkel	.....	BBB&C
Pet. Prod	10-Kunkel	.....	BBB&C
Underwood Drlg.	5-Andrews	Sec-1805	TE&L

Cooke County

Fain-McGaha	3-Huggins	Blk-9	SP
Kewamee	8-Hyman	.....	ET

Wichita County

Pigg	1-Foster	Sec-2	Barwise
Hines-Humble	4-Waggoner	.....	Willis
Hunter	6-Waggoner	Blk-1	George
Golding-Cochran	9-Waggoner	Blk-22	George
Prod. Drlg. et al.	1-Allen et al.	Blk-28	KWVFL
Cotton	1-Boyd	Blk-15	DL&C
Riner-Bailey	11-Michie	.....	Netherly
Riner-Bailey	9-Michie	.....	Netherly
Reno	4-Roller	Blk-8	Maverick
Dixon et al	1-Chilson	League-4 Blk-24	DCSL

Wilbarger County

Dixie	C-Waggoner	Sec-4 Blk-5	H&TC
Dixie	b1-Waggoner	Sec-4 Blk-5	H&TC
Empire	9-Waggoner	Sec-25 Blk-4	H&TC
Empire	13-Waggoner	Sec-25 Blk-4	H&TC
Empire	14-Waggoner	Sec-25 Blk-4	H&TC
Fain-McGaha	6-Waggoner	Sec-43	MEP&P
Wood et al	1-Waggoner	Sec-8 Blk-4	H&TC
Staley-Wynne	E3-Waggoner	Sec-25 Blk-4	.....
Staley-Wynne	1M-Waggoner	Sec-39	MEP&P
Cosden	D2-Waggoner	Sec-35 Blk-2	H&TC
Simpson-Fell	A2-Waggoner	Sec-36 Blk-2	H&TC
Clark-Cowden	1-Waggoner	Sec-16 Blk-4	H&TC
Bradstreet	2-Waggoner	Sec-31 Blk-4	H&TC
Barkley-Meadows	3-Waggoner	Sec-17 Blk-4	H&TC
Burton	3-Waggoner	Sec-18 Blk-4	H&TC
Fain-McGaha	16-Waggoner	Sec-32 Blk-4	H&TC
Fain-McGaha	17-Waggoner	Sec-32 Blk-4	H&TC
Grayback Dev	10-Waggoner	Sec-40	MEP&P
Knight et al	6-Waggoner	Sec-40	MEP&P
Empire	15-Waggoner	Sec-25 Blk-4	H&TC

Young County

Perkins-Cullum	2-Lemmon	.....	BBB&C
Panhandle	1-Stevens et al.	.....	BBB&C
Perkins et al	1-Clark	Sec-208	TE&L
Rannell	3-Jack	Blk-23	YCSL
Panhandle	3-Pitman	.....	Elmore
Parks et al	3-Carpenter	.....	Sergeant
United Royalties-Franklin	3-Carpenter	.....	Sergeant
Carpenter	5-Barrett	.....	Sergeant
Fowler et al	1-Hill Est.	Sec-195	TE&L
Christie et al	1-Robertson	Sec-406	TE&L

PANHANDLE

Note—Not reporting.

WEST TEXAS

Brewster County

Bateman et al	2-Neville	Sec-62 Blk-13	GH&SA

Crane County

Simms-Atlantic	2-Univ.	Sec-45 Blk-30	Univ.

Fisher County

Roeser-Pendleton	1-Johnson	Sec-71 Blk-1	H&TB
Texas	2-Stephens	Sec-79 Blk-1	H&TC
Riley et al	1-Veach	Sec-4 Blk-2	English
Mid West	1-Steele	Sec-210 Blk-1	BBB&C

Glasscock County

California	3-Currie	Sec-219 Blk-29	W&NW

Howard County

Plymouth	5-Morgan et al.	Sec-5 Blk-32	T&P
Moody	22-Roberts	Sec-137 Blk-29	W&NW
Merrick-Bristow	11-Hooks	Sec-140 Blk-29	W&NW
Merrick-Lamb	9-Clay	Sec-126 Blk-29	W&NW
California	3-Roberts Lse. 1	Sec-137 Blk-29	W&NW

Kimble County

McLeon et al	1-Cannon	Sec-741	Cochran
Lindsey et al	1-Amberson	.....	Hubinger
Bryant	1-Lambert	Sec-43	Latta

Kinney County

Lloyd	1-Moore Est.	Sec-117	Maverick

Menard County

Barnett et al	2-Callan Land Co.	Sec-1	BS&F

Mitchell County

Alexander et al	1-Elwood	Sec-4 Blk-18	SP

Pecos County

Phillips	1-Southwestern Life	Sec-73 Blk-OW	TM
Shell	1-Jackson	Sec-28 Blk-3	H&TC
Owens et al	1-Masterson	Sec-104 Blk-10	H&GN
California	5-Smith Lse.-1	Sec-21 Blk-194	TC
California	8-Smith Lse.-1	Sec-23 Blk-194	TC
Skelly	2-Tippett	Sec-108	TC
Bowen	1-Univ.	Sec-25 Blk-16	Univ.
Shell	1-Univ.	Sec-31 Blk-16	Univ.
Owens	1-Masterson	Sec-104 Blk-10	G&GN
Roxana-Kerby	1-Univ	Sec-23 Blk-26	Univ.
Tower-McKenna	1-Univ.	Sec-3 Blk-17	Univ.
Seminole	1-Cordova	Sec-51 Blk-11	H&GN

Schleicher County

O'Harron et al	1-Fee	Sec-61 Blk-M	GH&SA

Tom Green County

Furhman	1-Wordlaw	.....	Vacancy strip
Cannon et al	1-Rust	Sec-754	Dohmann

Ward County

Alpine Dev	1-Townsite	Sec-11 Blk-5	H&TC
Dorr	1-Fee	Sec-2	Howe

Winkler County

Atlantic	B6-Hendricks	Sec-44 Blk-26	PSL

Completions in Texas, Week Ended August 17, 1929

NORTH CENTRAL & EAST CENTRAL

Brown County

Company	Well	Farm	Survey	Sec. & Blk.	Depth	Init. Prod.
Humble	22	Humble	Delgado	Sec-1 Blk-789	1197-1216	30
Lloyd	12	Collier	Smith	Blk-139	455-458	1M
Shaw	1	Joplin	Collins		1776-1780	5
Bearman et al	5	Spencer	Swindle		1093-1098	18
Gunn Prod	10	Gunn	Smith	Blk-155	T.D. 1217	Dry
Humble	13	Byler	T&NO	Blk-43	T.D. 1366	Dry
Lloyd	19	Stanley	Smith	Blk-139	T.D. 466	Dry
Natural	6	Capps	Hunt	Blk-18	T.D. 1750	Dry
Beall-Gully-Micheal	1	Armstrong	H&GN	Blk-1	T.D. 1500	Dry

Callahan County

Davis	6	Johnson	BOAL	Sec-21	T.D. 545	Dry
Bailey-Mancill	2	Williams	Univ.	Sec-139	T.D. 484	Dry
Woodley	5	Finley	BOAL	Sec-74	T.D. 415	Dry
Woodley	3	Finley	BOAL	Sec-75	T.D. 403	Dry
Campbell	1	Alexander	ET	Sec-23	1036-1055	120
Bailey-Mancill	3	Williams	Univ.	Sec-139	472-478	7

Coleman County

Dallas	2	Babbington	Rose	Blk-80	1039-1052	10
Tower-McKenna	1	Crowder	Woods	Blk-483	1974-1988	37.5M
Cranfill-Reynolds-Owens	1	Vance	Lane	Blk-129	T.D. 725	Dry
Grass Roots	1	McDermott	Comal Co. Sch. Ld.	Sec-27	T.D. 478	Dry

Eastland County

Chestnut-Smith	1	Stubblefield	H&TC	Sec-20 Blk-2	T.D. 3167	Dry
Fulcher	1	May	Mason		T.D. 1505	Dry
Chestnut-Smith	1	Kurklin	H&TC	Sec-62 Blk-4	3443-3448	120
Forrester-Starr	2	Spencer et al.	H&TC	Sec-29 Blk-2	1325-1331	3
Lone Star	1	Storm	SP	Sec-470	3570-3588	2½M
Southern Oil Prod.	1	Webb	H&TC	Sec-26 Blk-2	1240-1246	6&1M

Jack County

Buttram	1	Boyd	Wright		2423-2426	118

Shackleford County

Hughes et al	2	Hill	LAL	Sec-2	687-698	10
Holden	1	Jackson	T&P	Sec-85 Blk-12	T.D. 1226	Dry
Roeser-Pendleton	8A	88-Cook	ET	Sec-88	1388-1410	15M
Combest	1	Mathews	ET	Sec-30	T.D. 1153	Dry

NORTH TEXAS

Archer County

Freeman	8	Hennig	Meade		1437-1446	30
Humble	6	Kunkel	BBB&C		1135-1148	225
Magnolia	1	Justice	Patton		1100-1110	6
McCarty et al	1	Wilson	H&TC	Sec-2 Blk-1	1582-1587	10
Moran Drlg	2	Bloodworth	Cartwright		1223-1227	50
Perkins-Cullum et al.	1	Andrews	Bond		1229-1238	12
Shappell	8	Lyles	Hooper et al.	Blk-7	1704-1707	50
Cullum-Prairie	1	Falls Co. Sch. Ld.	FCSL	Blk-17	1093-1109	30
Humble	21	Hamilton	Crawford		T.D. 1465	Dry
Parson et al	1	Terrell	Herring	Blk-17	T.D. 810	Dry
Tidal	5	Turveville	Carson		T.D. 1466	Dry
Underwood Drlg	4	Andrews	TE&L	Sec-1805	T.D. 918	Dry

Cooke County

Benson Bros	2	Haverkamp	Burdett		T.D. 1601	Dry
Humble	2	Field et al.	Stanley		1180-1186	194

Wichita County

Hines-Humble	3	Waggoner	Willia		1327-1333	60
Sheldon	1	Whittenbach	Waggoner	Blk-303	1916-1920	10
Reno	3	Roller	Maverick	Blk-8	1235-1239	12
Akin-Rayzor	1	Burnett	HT&B	Sec-4	T.D. 2001	Dry
Comac Drlg. et al.	1	Overby	Sharp		T.D. 1851	Dry
Hunter	1	Jenne	Haste		T.D. 1349	Dry
Magnolia	1	Waggoner	H&TC	Sec-35 Blk-7	T.D. 3665	Dry
Texas	3	Mangold	Castleman	Blk-37	T.D. 1900	Dry
Venmex-Hines	1	Waggoner Bros.	GCDSF	Blk-4	T.D. 1927	Dry
Stumpf-King	1	Waggoner	GH&H	Sec-8 Blk-9	T.D. 2003	Dry

Wilbarger County

Burton	1M	Waggoner	H&TC	Sec-3 Blk-5	T.D. 2443	Dry
Texas	364	Waggoner	H&TC	Sec-7 Blk-13	T.D. 2450	Dry
Texas	P-1	Waggoner	SP	Sec-1	T.D. 2000	Dry
Knight et al	A5	Waggoner	MEP&P	Sec-40	1856-1873	105
Fain-McGaha	14W	Waggoner	H&TC	Sec-32 Blk-4	2294-2323	165
Fain-McGaha	15W	Waggoner	H&TC	Sec-32 Blk-4	1843-1857	180
Baker	B12	Waggoner	Purnell		1872-1895	38
Barkley-Meadows	C10	Waggoner	H&TC	Sec-5 Blk-5	1870-1894	85
Carter	3	Waggoner	H&TC	Sec-9 Blk-4	1988-1997	46
Empire	B13	Waggoner	H&TC	Sec-32 Blk-4	2312-2315	198
Golding-Cochran	6H	Waggoner	H&TC	Sec-32 Blk-4	2315-2375	40
Simpson-Fell	1A	Waggoner	H&TC	Sec-36 Blk-2	2658-2673	198
Staley-Wynne	G5	Waggoner	H&TC	Sec-32 Blk-4	2315-2317	189
Texas	E18	Waggoner	H&TC	Sec-25 Blk-4	1875-1876	80

Young County

Carpenter	2	Barrett	Sergeant		567-599	Dry
United Royalties-Franklin	1	Carpenter	Sergeant		592-614	24
Wise-Jackson	10	Calvin	Rohus		545-555	7
Archer Drlg-Christie-Sharp	1	Logan	TE&L	Sec-407	T.D. 1302	Dry
Panhandle	1	Brown	TE&L	Sec-290	T.D. 902	Dry
Parks et al	4	Carpenter	Sergeant		T.D. 665	Dry
Stafford	2	Farrow	TE&L	Sec-283	T.D. 560	Dry

PANHANDLE

(Not Reporting)

WEST TEXAS

Brewster County

Bateman et al	1	Neville	GH&SA	Sec-64 Blk-13	T.D. 1973	Dry

Crane County

Gulf Prod	64	McElroy	CCSD	Sec-201 Blk-F	2783-2946	225
Tidal	92	Univ.	Univ.	Sec-47 Blk-30	2770-2938	25

Crockett County

Young-Donnelly-Moncrief	1	Massie	GC&SF	Sec-47 Blk-UV	1420-1450	15

Menard County

Cromwell	1	Winston	T&NO	Sec-32	T.D. 1890	Dry

Pecos County

Phillips	1	Bowser	TM	Sec-77 Blk-OW	T.D. 1450	Dry
California	4	Smith Lse-1	TC	Sec-21 Blk-194	1308-1410	85
McMan	6	Smith	TC	Sec-25 Blk-194	1748-1760	25
O'Mara et al	1	Butz	H&GN	Sec-54 Blk-10	1338-1377	35
Doran-McGee	1	Pecos Valley Oil Co.	H&TC	Sec-34 Blk-3	1540-1672	20&2M

Winkler County

Southern Crude	88H7	Hendricks	PSL	Sec-28 Blk-B-5	3185-3208	800
Southern Crude	T88M34	Hendricks	PSL	Sec-33 Blk-26	2728-2730	613 (1 Hr.)
Southern Crude	T88M33	Hendricks	PSL	Sec-33 Blk-26	2742-2760	185 (1 Hr.)
Southern Crude	T672D5	Hendricks	PSL	Sec-28	2858-2890	360 (1 Hr.)

Completions in North Louisiana and Arkansas, Week Ended August 15, 1929

Louisiana—Caddo Parish

Company	Well	Location	Depth	Yield
Dixie Oil Co	Robertshaw No. 100	13-21-15	1744	35 bbls.
C. B. Moore	Dillon No. 5	22-20-15	2286	sw. aband.

LaSalle Parish—White Sulphur

Tunica Pet. Co	L. & A. No. 48	16-7-2E	808	20 bbl

Morehouse—Monore

S. D. Hunter	Allison No. 9	18-20-5E	2217	3M gas

Ouachita—Parish—Monroe

J. B. Bond	McEmery No. 1	19-19-4E	2191	3M gas
Pipes & Mack	Wallace No. 1	7-18-5E	2285	500,000 ft. gas

Lincoln Parish

V. E. Shaw et al	Voss No. 1	1-20-3W	2275	salt water, abd.

Sabine Parish—Pleasant Hill

Bridges-Clark Oil Co.	Williams No. 1	33-10-12	3215	2000 bbls.

Union Parish

H. C. McDonald	Union Sawmill No. 2	18-23-1E	1500	dry, aband.
Bahan & Bahan	Peak No. 1	17-20-4E	2140	5M gas
Harrell & Jones	Striplin No. 1	17-20-4E	2150	8M gas
Nat. Gas Prod. Co.	Hale No. 3	11-21-3E	2196	5M gas

Webster Parish—Cotton Valley

Standard Oil Co. of La.	Bodcaw B-22	28-21-10	4631	50M gas

East Texas—Marion County

Pettit Oil Co	Rives No. 3	No. 11 HRS	2306	25 bbls.

Penala County—Bethany

Magnolia Pet. Co	Ella Baker 3 Co- Ord F-15		2820	junked, aband.

Arkansas—Smackover

Lion O. R. Co	Berg No. 4	4-16-15	2285	15 bbls
Lion O. R. Co	Bilyew A-1	8-16-15	2399	10M gas
Lion O. R. Co	Hays No. 2	4-16-15	2292	30 bbls
Lion O. R. Co	Hays No. 3	4-16-15	2285	35 bbls.
Lion O. R. Co	Hays No. 5	4-16-15	2287	35 bbls.
E. L. Chapman	Purifoy No. 1	2-16-15	2148	15 bbls.
Marine Oil Co	Snyder 1-A	34-15-15	1964	50 bbls.
Skelly Oil Co	Wood No. 1	34-15-15	1983	175 bbls.
Root Ref. Co	Calloway No. 6	4-16-15	2295	110 bbls.

Shutting In Oklahoma City's Big Gasser Is Difficult Job

By John Power
N. P. N. STAFF WRITER

With both these connections open, the big gasser roars and howls and whistles like an army of souls in torment

"DO IT," says he. "How?" says I.

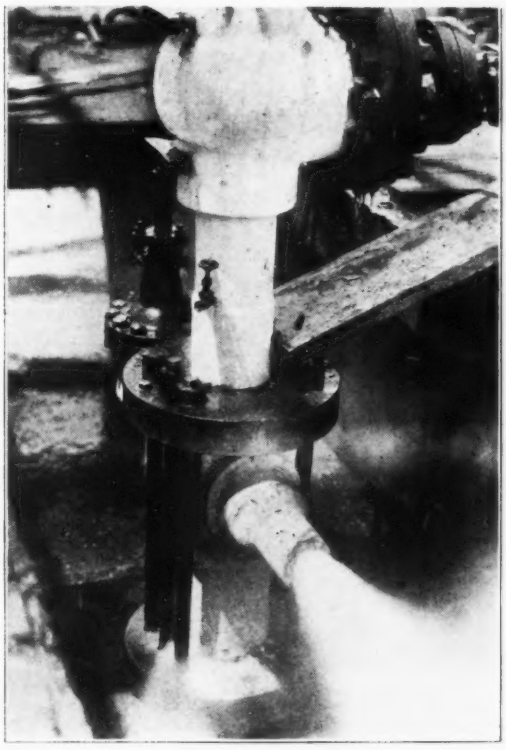
"That's your business," says he.

In compliance with the order of the Corporation Commission, the Sinclair Oil & Gas Co. set about shutting in No. 1 Kinter, NW SE of 30-11N-2W, the famous gasoline well owned jointly with the Amerada Petroleum Corp. on the southeast edge of the present production in the Oklahoma City pool.

Due to the condition of the well head connections, shutting in the well has been no easy task. Under the extremely high rock pressure under which the gas reaches the surface, leaks at the well head connections became highly dangerous. In addition, they made it virtually impossible to kill the gas flow, and put the well in condition for deepening.

And quite naturally, it is desirable to deepen the well. With slathers of oil quite reasonably but a couple of hundred feet deeper, a shut in gas well, with no market for the gas, is just so much dead timber. But to deepen the well, the tremendous flow of gas, estimated as amounting some 75 or 80 million cubic feet per day at 2200 pounds pressure, must be killed.

The leak at the well head came from a die thread nipple by which the connections were applied. The gas had been encountered unexpectedly, before preparations had been made to handle any such proposition. It proved impossible to engage a control head against the 2200 pound pressure of the gas, so a die-thread nipple was used, the master gate and lead lines to the traps being set in above it.



When first applied, the die thread nipple had leaked at the threads, even with the pressure relief afforded by the passage of the gas through the traps, which meant a back pressure at the well head of some 1200 pounds. The nipple was tightened up, and held satisfactorily under these operating conditions. But when the well was shut in completely and the pressure began to approach 2000 pounds, the leak made its presence known in no uncertain terms, and indicated that it would have to be taken care of before the gas could be killed and the well deepened.

This was on Saturday afternoon, Aug. 3. It became necessary to open the well again to prevent a serious blow-out, which was done Saturday evening.

The next day, Sunday, was spent in tightening the die-thread nipple. This was done by tonging it up with regular casing tongs, the end of which was attached to a jerk line from a spudding pulley on the crank. A gang of men heaved on a cat line stretched from the tongs out under the bull wheel shaft, pulling the tongs back to position after the crank had released the pressure it applied to them.

To turn the nipple, of course the connections to the traps had to be broken out. The remainder of the day was spent in getting enough of these connections back in place so that gates could be applied and the well shut in again. When shut in, the leak was practically stopped, and preparations are going ahead to kill the gas as this is written.

To kill the gas, an extremely light mud will be used. It would be impossible to pump heavy mud at sufficient pressure to overcome the rock pressure of the gas. The equipment that the Sinclair is planning to use is different from that employed by the Indian Territory Illuminating Oil Co. in successfully killing the gas in that company's No. 1 Trosper, north of the field, though the principles are the same. The I.T.I.O. equipment will be described a little farther along in this article.

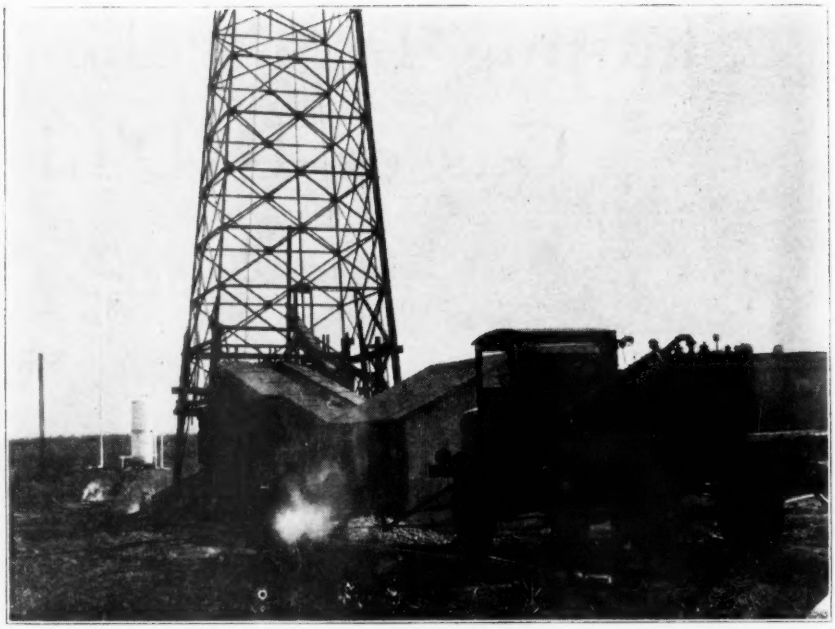
The Sinclair is planning to use the latest design of Halliburton cementing pump, mounted on one of the Halliburton trucks. This equipment, newly designed, was built to handle cement jobs at high pressures, where difficulty might be expected in forcing the cement back of the pipe. For mudding off the gas well, the high pressure pump will have its intake connected direct to the mud supply of mud, instead of the cement mixer mounted on the truck, as would normally the case in a regular cementing job.

A 500 barrel tank has been erected near the well to be used as a fluid reservoir. A Gaso pump, mounted on the truck, picks up the fluid from the tank, discharging it down the well. The pump which has a peak pressure of about 3000 pounds, will handle about 20 barrels per hour at 2000 pounds. It is gear driven from a Waukesha motor in the truck. The motor is provided with a special radiator drain which permits the use of an auxiliary circulating tank, so that water may be cooled and circulated through the water jacket during the running of the engine under heavy load.

In the event that the gas pressure is such that the sand will not take the fluid, it is planned to "lubricate" the fluid in. This method, a long slow process, derives its name from the similarity of principle between it and the old steam line lubricator.

Three joints of 9-inch casing are set up, and made fast to the derrick. A 2-inch fluid line admits the fluid to the joints of 9-inch, a valve in the bottom of the 9-inch being closed to retain it. After the joints of 9-inch are filled with fluid, a valve on the 2-inch line is closed, and the valve on the connection between the bottom of the 9-inch joints and the well head is opened.

Gas rises from the well, passes through the fluid in the 9-inch, and backs up against a closed valve at the top of the 9-inch. Pressure here increases until it equals the pressure of the gas coming from the well, at which point the fluid passes down the hole. About eight "charges" of water can be put down one of the deep holes such as the Sinclair's well every 24 hours. Naturally, the pumping method is to be preferred on account of its speed if it can be handled in that manner.

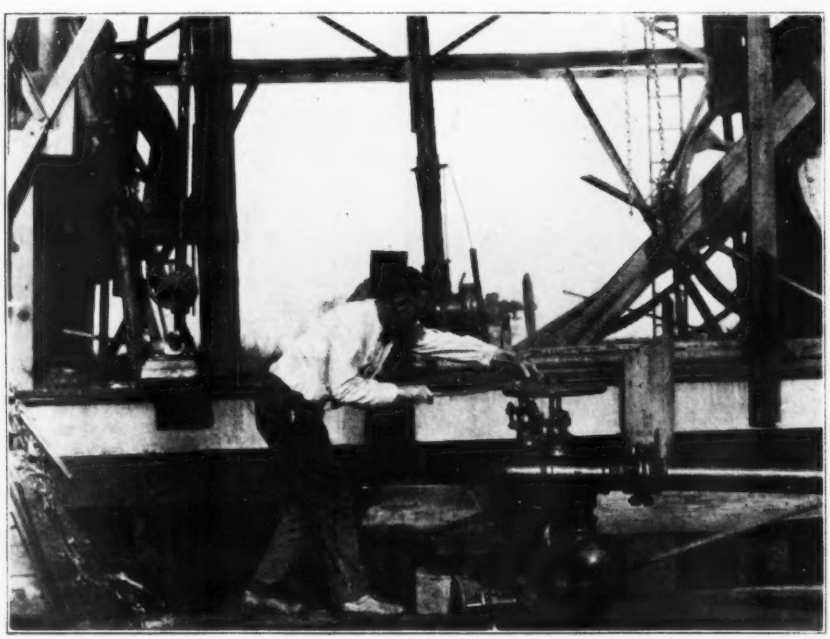


Rigged up, and hoping to pump mud. A Halliburton cementing outfit used by the Sinclair in killing the No. 1 Kinter on the southeast edge of the Oklahoma City pool

The equipment used by the I.T.I.O. differs from that employed by the Sinclair. A high pressure Worthington pump, with a working pressure of 3000 pounds at the fluid end was employed. The pump, a horizontal duplex, outside end pack design, 17 x 2 x 15, has a forged steel fluid end, with case hardened steel plungers. The valves are of nickel bronze, the seats of hardened tool steel.

Salt water from the discovery well was used, being pumped to a 500 barrel tank set up near the well. The mud solution was extremely light. Two-inch lines connected the tank with the pump, the discharge line to the well being also 2-inch. About four days time, running 24 hours per day, was required to pump sufficient fluid down the well to kill the gas in the Trosper.

The next well to be so treated is to be the I.T.I.O. No. 1 Watters, on the south edge of the present field, and by far the largest gas well so far encountered in the field. This giant gasser made, on actual test, 186 million cubic feet of wet gas per day against 1400 pounds back pressure. Estimates of a potential open flow on the well give its possible production close to 260 million cubic feet per day, at 2200 pound rock pressure.



Farm Boss Oak of the Sinclair, shuts in the Sinclair-Amerada No. 1 Kinter, on the southeast edge of the Oklahoma City pool

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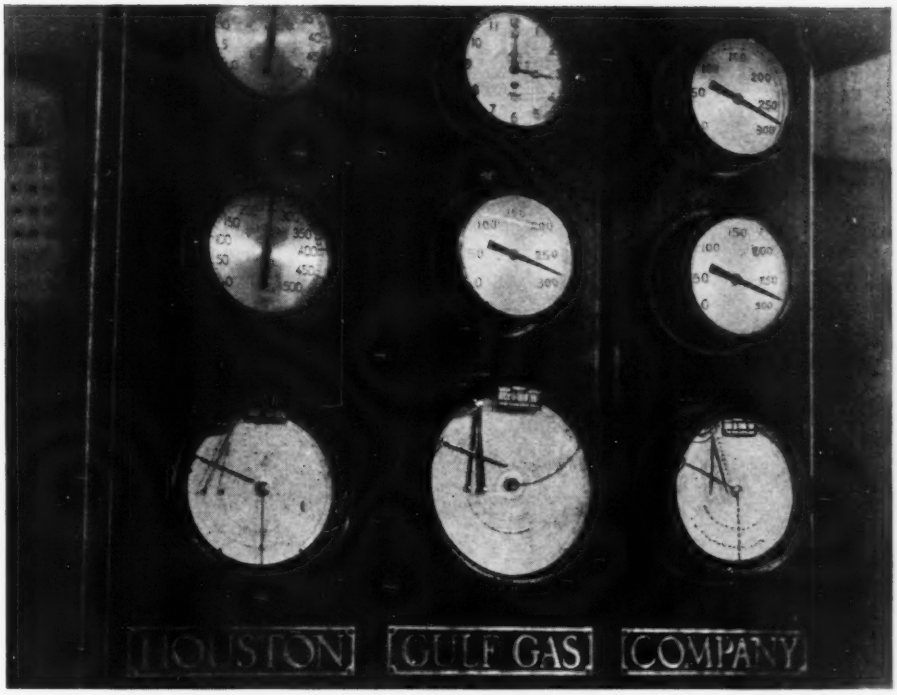

Foxboro Instrument Board in the compressor station of the Houston Gulf Gas Company. This pipe line runs from the Refugio field to Houston, Texas.

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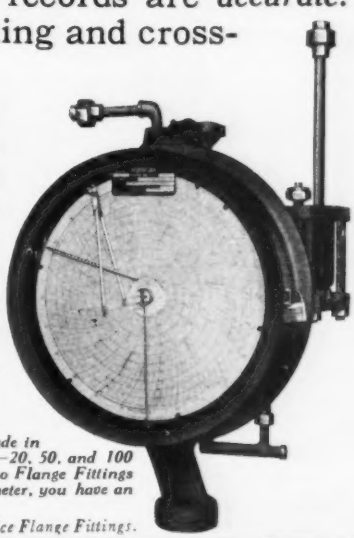
Take the Foxboro orifice Meter. For nineteen years Foxboro has been developing this Instrument—an Orifice Meter that will measure wet or dry gas *accurately*. The Instrument has no inherent error. Uniform pen travel makes a uniform scale chart. The records of Foxboro Orifice Meters are the bills of lading for goods delivered! Leading oil and gas companies accept these records as sight draft for goods received. These records are *accurate*. They stand checking and cross-checking.

For further information about Foxboro Instruments write the nearest Branch Office. The recommendations of a Foxboro Engineer can be had for the asking. It involves no obligation. Write today!



The Foxboro Orifice Meter is made in 3 standard differential ranges—20, 50, and 100 inches, of water. With Foxboro Flange Fittings made from 2" to 24" in diameter, you have an ideal combination.

Agents for Robinson Patented Orifice Flange Fittings.

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THE COMPASS OF INDUSTRY

INSTRUMENTS *for* CONTROLLING, RECORDING *and* INDICATING TEMPERATURE, FLOW, HUMIDITY *and* PRESSURE

Time Effacing Cradle of Our Industry Now Too Busy to Honor Drake

By Harry Botsford

TITUSVILLE, Pa.

SEVENTY years ago Aug. 27 a young boy scampered up the dusty street leading to the American Hotel in the little village of Titusville and, overwhelmed with importance and the heat of the day, stammered out a more or less incoherent message to a tall austere and bewhiskered gent who reclined comfortably in the depths of a patent rocking chair in the shady corner of the hotel veranda.

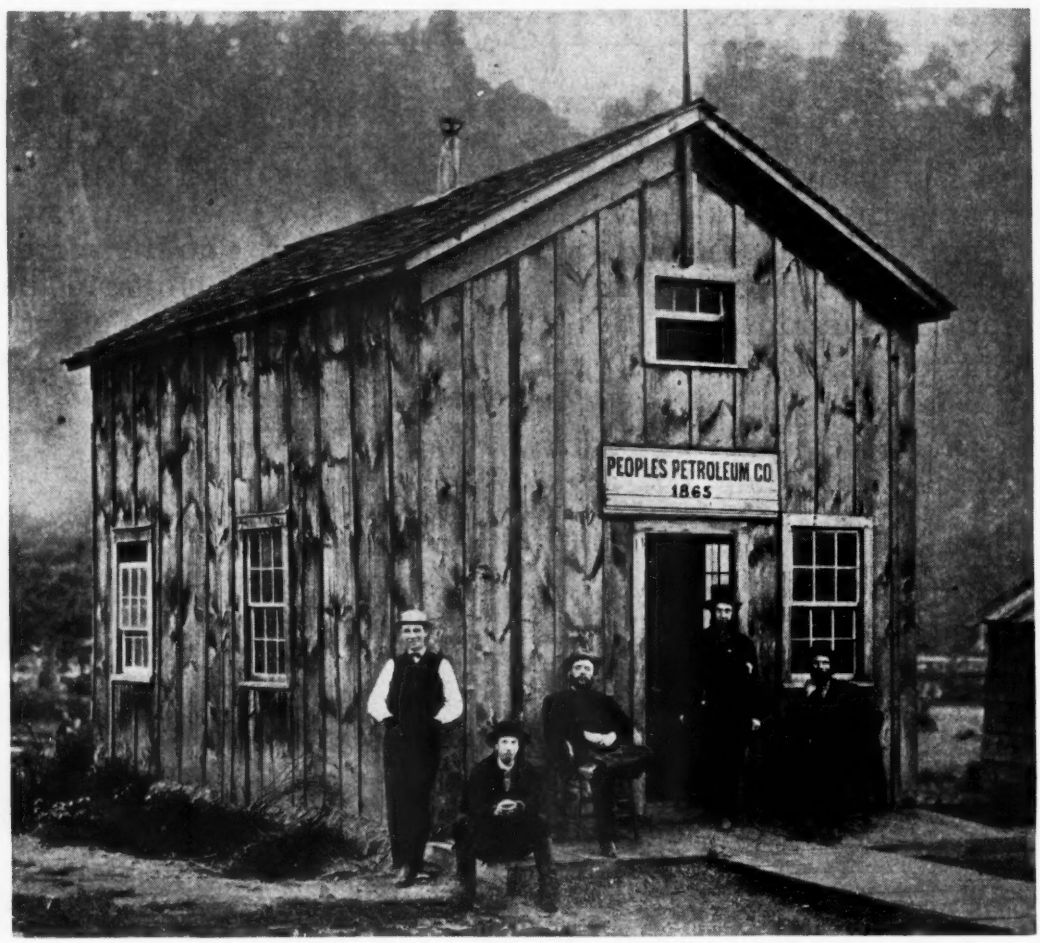
The austere gent permitted himself one fleeting smile, a momentary gloat that temporarily disturbed the vast and impressive dignity that clothed him, lazily got to his feet, fought successfully with a galloping and nervous Adam's apple and said gruffly, "I'll be right down!" and shambled down the dusty street.

The man was Edwin L. Drake, who deserves the credit for drilling the world's first successful artesian oil well. The boy's name is lost in the murk of the past.

Tragic that the boy's name is lost to a history that is otherwise replete and complete with details. Believe it or not, this boy brought an important message, a message beside which those lines to the late Mr. Garcia are dull, vapid and totally lacking in interest. For this lad brought the news to Edwin L. Drake that his venture was successful, that he had solved a terrific and complicated problem.

Briefly, the problem was this: here was a place, along the banks of Oil creek, where oil and water flowed from the ground. The problem was to increase the flow of oil which was held to be valuable and the most practicable way (arrived at after much travail and deep thinking) seemed to be to drill a hole down to the source of supply or the pool from whence the oil seeped. It took Edwin L. Drake almost two years to do this—a total depth of less than 70 feet.

But the boy's message of Drake's achievement marked the birth of the oil industry. Seventy years has



Col. Edwin L. Drake and the crew that brought in the first well at Titusville. Col. Drake is sitting in the chair at the right. The only survivor is "Uncle Billy" Smith of Titusville. When the daguerreotype of which this picture is a copy was taken, he was a youth. In the picture he is standing against the corner of the house

passed, seven brief, hurried decades. The infant industry has grown to gigantic proportions. It has spread from the peaceful valley of its birth to the corners of the earth. It has brought prosperity and wealth to an untold number of people; it provides employment to hundreds of thousands, possibly well up in the millions, if we take into consideration those who provide the great and imposing array of diversified tools and machinery used in the various phases of the petroleum industry. It has grown faster than any other industry.

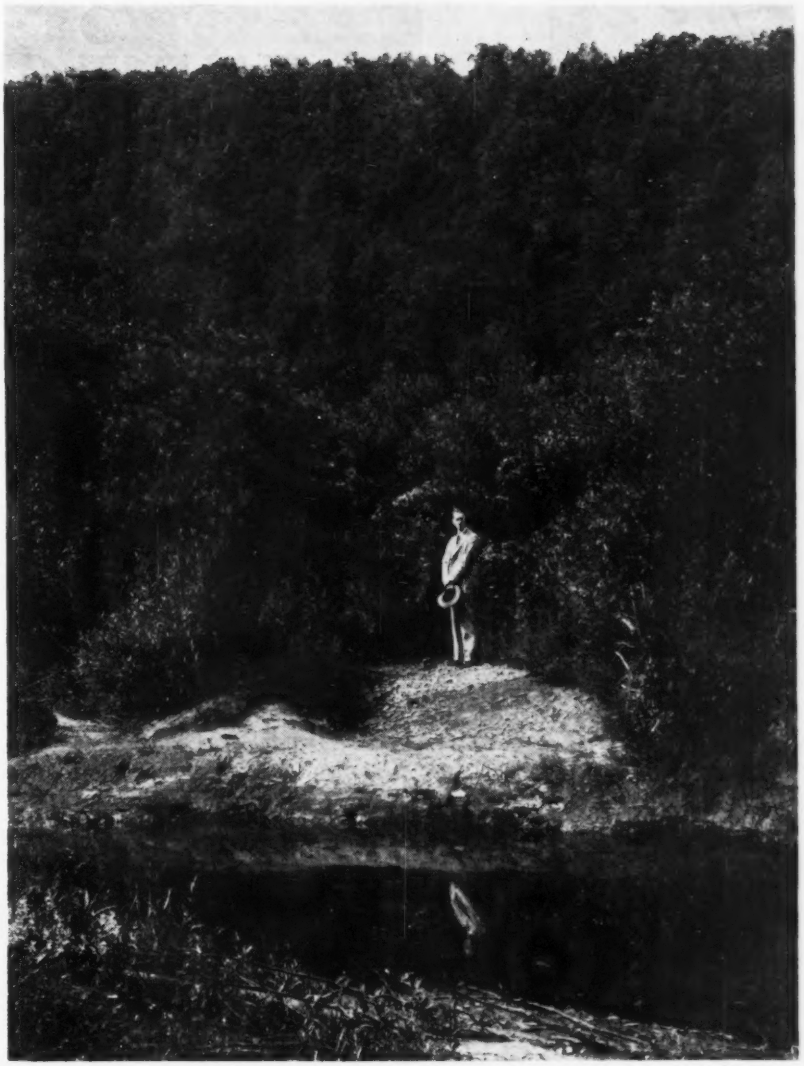
Considering these facts it would seem likely that each year on Aug. 27 there would be a great celebration of the affairs, that the 70th birthday, particularly would be a feast day, given over to music and entertainment and oratory and broadcasting and what not. It would seem that the oil men of the world would gather together in this sleepy little town in a pilgrimage to the site of the world's first artesian oil well. It would seem reasonable to expect that the dingy old stone that marks the site of the Drake Well would be well nigh smothered in wreaths of fragrant and delicately scented flowers.

However:

There will be no formal or informal celebration. The merchants flap discouraged hands and opine that they are entirely too busy. Besides, they argue, what's the use. Oil men, too, state that they are beset with business problems of great import. Besides they have forgotten.

"Seventy years ago! Well! Well! I'll be damned!"

Some earnest citizens called the Chamber of Commerce about sponsoring a celebration. But they, too, are busy. Too busy to give the matter serious thought.



Oil creek has cut across the road to the Drake well monument. Harry Botsford, author of this article, is standing in what remains of the road

All of which may create an impression that the little city of Titusville, nestled and cradled in the green of gracious hills, is a busy metropolis. A false impression, my friend. A machine gun turned loose up and down Spring street would probably cause no serious casualties aside from a few minor ones amongst the lads who steadfastly stand in front of the local pool and billiard emporium.

The truth is no one cares a two-penny damn.

It's a mile and a half to the site of the old Drake Well, a road marked with signs that are sadly in need of paint. Where the road turns off in a branch to the old well the way is barred by a stern shackle line that saws back and forth. Not even the most nimble Ford could leap this barrier. So one dismounts and travels down the road and crawls over ditches and boulders. One crawls through a veritable tunnel of elderberry bushes. Then one comes to another barrier.

Oil Creek, at this point, circles a bend and the water speeds up. And some time ago a freshet swept down and hurled itself against this curve and gnawed out a sizable bayou that very unthinkingly incorporated in its mouthful the road. But some enterprising citizen filled with civic pride has placed a greasy and ancient plank across the water. Crossing is an adventure. Then through another tunnel of weeds and bushes one comes into the clearing where the old rock is etched bulkly against the August skyline.

This rock, through the courtesy and enterprise of the local chapter of the Daughters of the American Revolution, marks the site of the Drake Well. Too, there is a flag pole whose ancestry is somewhat vague. It is topped by a ball that was once gilt and is now an indeterminate and unlovely shade of brindle.

And there you are! Here was born the first oil well. In 70 years the appearance of the place has changed but little. The clearing is sprinkled with wild flowers and rank growths of ferns. The birds sing sleepily in the shade of second growth maples and scrub oaks. Less than a stone's throw away Oil creek snickers and gurgles in a shimmering sheet of fast-moving silver between emerald banks. The place is desolate, lonesome and oppressive with heat that is shut in by a circle of ancient and stolid hills.

God, the petroleum industry and mankind have forgotten this spot. It might, under happier circumstances, be a national shrine. There could be an ordered loveliness, and impressive and serene beauty given to this few acres. And the cost would not be burdensome. All that is needed is a Santa Claus, a Caliph, or an unselfish endowment.

There will be no celebration.

The memory of man is short and fleeting. And in the oil industry some of the best minds have it that the speed is far above normal. Yet, and these be facts, brethren: there rests in the shadows of lovely Woodlawn Cemetery, all that is mortal of Edwin L. Drake. Here he sleeps the

Sulphuric Acid

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The New **SELDEN** *Process*

Illustrations of a recent installation of this new process made by Chemical Construction Company, who have placed in operation or have under construction plants having a total annual capacity of 400,000 tons H_2SO_4 equivalent are shown in this booklet. Sent free on request.

WHETHER you have ever seriously considered the proposition of producing your own sulphuric acid or not, it will pay you to investigate The Selden Company's New Contact Process. The manufacture of strong acid, heretofore an extremely complicated and exacting process has been simplified to such a high degree that an entire plant can now be operated from a single control point with an extremely limited personnel.

This extraordinary achievement, which unquestionably represents the greatest advance in processes in many years, is due to the unique design of The Selden Company's New Compound Automatic Heat Exchange Converter System, which when used with The Selden Company's New Powerful Non-Platinum Catalyst gives an efficiency of 98% conversion and better.

Heretofore existing limitations of converter size and the complex operating control system have been completely swept away. In addition, two expensive stages of producing contact acid — purification of SO_2 gases from gaseous poisons and any outside source of heat for preheating the SO_2 gases have been entirely eliminated.

So great is the increase in efficiency that it is now more economical to make contact acid and dilute it to chamber strength than to make weak acid by the chamber process. Because full strength acid can be readily marketed and shipped economically, all surplus production can not only be disposed of but show a real profit besides, a point which many users of sulphuric have been quick to see.

The SELDEN COMPANY
C-555 Selden Chemical Square
Pittsburgh, Penn., U. S. A.

Monument on the site of the Drake well as it appears today at the end of an overgrown rocky path

long sleep, sleeps beneath the chill and chaste beauty of chiseled marble that was cunningly wrought by a famous sculptor. It is surrounded by flowers, margined by a gravel drive of unbelievable smoothness. The grass is closely manicured and immaculate. A little stream in which grow water lilies of virginal whiteness wends its serene and hushed way near the monument.

And one wonders, perhaps a little ungraciously, if Drake is comfortable in all this beauty, in all this richness. And one wonders if he rests well beneath the halos that posterity has endowed him with: the purely complimentary title of "Colonel," for instance, that is inscribed deeply in his monument. For his life was mostly unhappy; a railroad conductor who was forced to quit work because of ill health; tricked into buying stock of a doubtful value from a pair of slickers. Then pestering the promoters for the promised dividends and being sent to Titusville to get rid of him—and then the struggle against odds, the struggle against lack of funds—the epic of a stubborn man, a man of limited intelligence who, by sheer stubbornness uncorked the greatest hidden wealth, the most useful wealth the world has ever known. The man who staunchly said, when all the rest of the little world with which he was surrounded, hustled and hurried and cheated and fought for land on which to drill: "Fools! I have tapped *the* vein!"

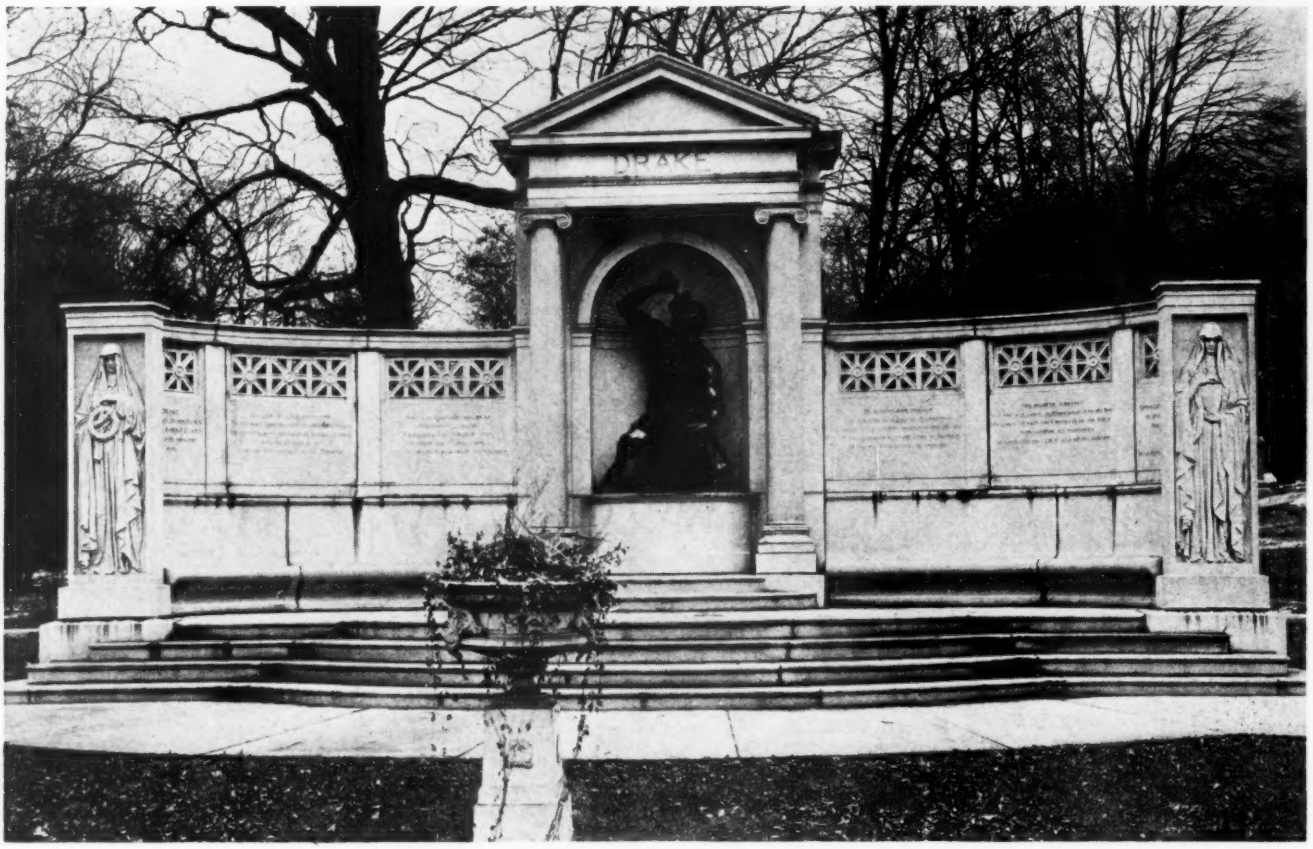
Poor Drake! He didn't, in the phrase of today, really know what it was all about. He was, strictly speaking, the instrument of slickers, the tool of questionable promoters. When in funds he spent, not wisely or well. From Titusville to New York. Broke: financially and physically. Found by a Titusville citizen as he was taking his twelve-year old son out in an attempt to find a job for him. Not a lovely or a desirable character, this Drake. But human. And then a collection was taken up; the oil industry generously contributed and forced the state of Pennsylvania to give Drake an annual pension of a comfortable character. He spent his last years in a wheel chair.

He was not, in spite of legend, embittered. After all, he believed, his friends, his adopted state and God were pretty kind. There was always a tight roof over his head, a piece of pork in the pantry and a kind, loving and loyal wife to wait on him.

A few years before he died he discovered the Bible. It opened up new and amazing vistas to the pain-racked, gaunt man who slouched deep in the invalid's chair. He also whittled and was adept with the jack knife.

No, the oil industry does not always forget. It is kind, in a hurried, generous, offhand way to its people. It forgives in an equal manner. But it is hardboiled to inanimate things; it is, perhaps entirely too busy making history to remember, in more than a fleeting manner, the history that has been made in the past.

History has been made in these parts. The little and the wicked boom towns are less than memories today: gone are Pit Hole City, Hardscrabble,



The monument to Drake in the Titusville cemetery

Red Hot, Sodom, Cash Up, Brimstone. Who remembers Ben Hogan, erstwhile citizen of Pit Hole and self-styled "Wickedest Man in the World" and who lived, according to reports, entirely up to his reputation? And J. Wilkes Booth, assassin of Lincoln, one-time oil operator? Who built and used the first pipe line? Who remembers the Benninghoff robbery when over a quarter of a million smackers were lifted by burglars who casually overlooked an equal amount? For years the Chicago gangsters considered this a mark to shoot at. And Roberts who invented the nitro torpedo and participated in the forgotten Moonlighter's War where the casualties were high—and frequent.

Sit in the little clearing down beside Oil creek, cradle your back against the old pine that stands there and gaze into the mute iron throat of the world's first oil well and memories come trooping around . . . memories of men and events. Gay, dashing, wicked, valient mortals who did things, who made history, who saw the oil industry through the teething period, who nursed it through colic, fed it with ideas. Gone are these men. Forgotten by all but a handful of folk who could, no doubt, employ their minds to better advantage.

There will be no celebration.

There's no one to sponsor it. There's no one who would care to attend. And, in a few years, the rough and boulder-strewn road will be little more than a vague path that leads to the old Drake well. Soon, perhaps, Oil creek will thunder around that bend and even tear down the old boulder that now marks the site. The woods and the vines and the bushes will creep nearer and nearer to the place where the oil industry was born. And then it will all be obliterated. And this will, at the present rate, take only a few years. Someday, moss will cover that very prominent place on the old monument where, with the knife of her boy friend, Mable Morrison of Corry, Pa., painfully but accurately scratched her name and address.

And all this might be prevented.

But there ain't no Santa Claus.

So, there will be no celebration.

Equipment Makers to Get Safety Help

CHICAGO, Aug. 9.—Several manufacturers of oil equipment who are helping the oil industry to obtain safe and practical equipment have been listed recently in the petroleum section of the National Safety Council to receive the complete service of that department.

Those companies are: Oil Country Specialties Mfg. Co., Coffeyville, Kan.; General American Tank Car Corp., East Chicago, Ind.; Emsco Derrick & Equipment Co., Houston and Los Angeles; Chicago Bridge & Iron Works, Chicago; The National Supply Co., Toledo, O.; Union Tank & Pipe Co., Los Angeles; International Derrick & Equipment Co., Columbus, O.; Hughes Tool Co., Houston; The Guiberson Corp., Dallas; Bessemer Gas Engine Co., Grove City, Pa.; and Byron Jackson Co., Berkeley, Calif.

Other members of the council who are entitled to the petroleum section service as makers of oil equipment are asked to write H. N. Blakeslee, National Safety Council, 108 E. Ohio St., Chicago.

TULSA, Aug. 10.—G. A. Steele, manager of the Pierce Oil Corp. interests in Mexico, with headquarters in Tampico, and Mrs. Steele were visitors in Tulsa recently enroute from New York to Tampico. Mr. Steele was in New York on business for the company, and returned by way of St. Louis for a visit to the company's general offices. Mr. and Mrs. Steele attended the openings of the two new Terminals of the company at Miami and Tulsa.

—*The Johnston Studios*
L. F. Payne

L. F. Payne Is Treasurer Of Oil Well Supply

PITTSBURGH, Aug. 9.—Leon F. Payne, credit department manager of the Carnegie Steel Co., has been elected treasurer of the Oil Well Supply Co., the directors announced recently. Mr. Payne will begin his new work Aug. 15.

H. H. James, present treasurer, was elected vice-president in charge of manufacturing. Lester H. Keim, manager of the California division, was elected vice-president in charge of his division.

Mr. Payne went to the Carnegie Steel Co. in 1909 and became head of the credit department in 1918. He is a director in the Diamond National Bank, and the Pittsburgh Forgings Co., Pittsburgh. He is a member of the University and the Keystone Athletic clubs.

Mr. Keim collaborated with the Oil Well engineering department in development of the "Oilwell" Hild differential drive for deep well drilling. He has been in the Oil Well engineering department on the Pacific coast since 1924. In 1928 he was made manager of the California division.

Hills-McCanna Co., 2349 Nelson St., Chicago, has off the press a bulletin on its proportioning pumps for feeding treating agents for low and high pressures. One type illustrated was arranged to serve as a unit of charging pumps in an experimental oil still. Various types are shown, such as a pump with chain and sprocket drive, with motor drive through reduction gears, direct reciprocating lever driver, etc.

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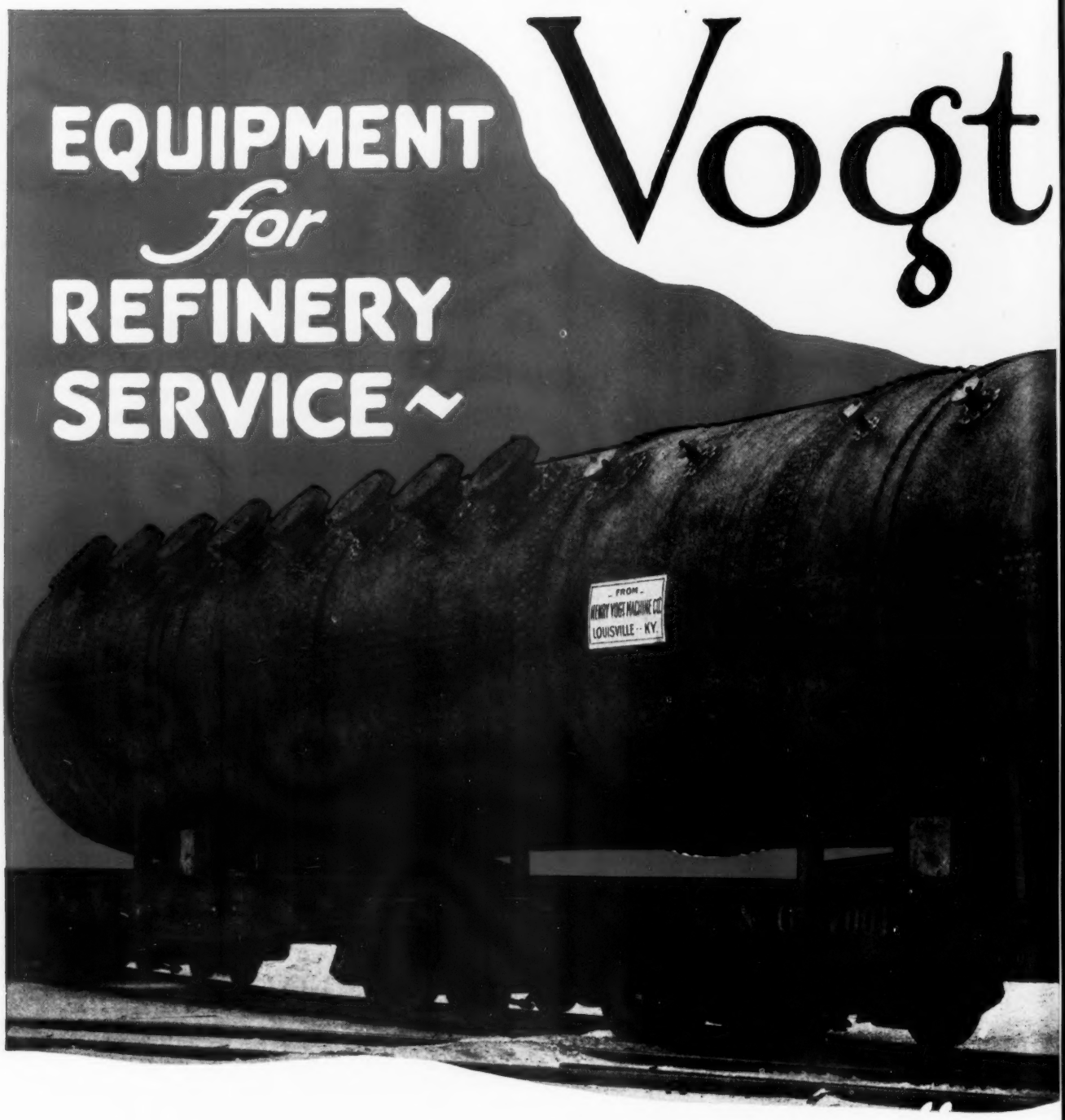

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DEPHLEGMATORS	EXPANSION CHAMBERS
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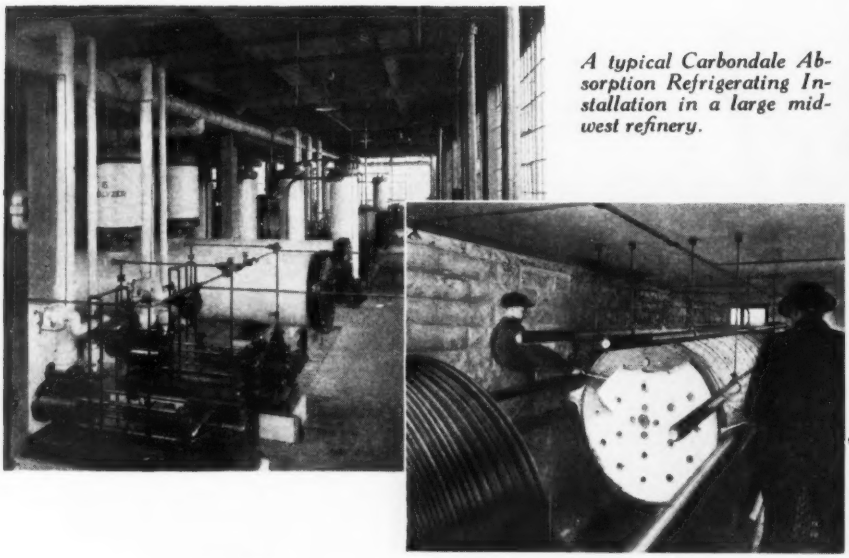

A typical Carbondale Absorption Refrigerating Installation in a large mid-west refinery.

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Whatever the temperature and capacity requirements there's a Carbondale System for the job. Let us send you a copy of our "Wax Plant Equipment Bulletin." It's yours for the asking.

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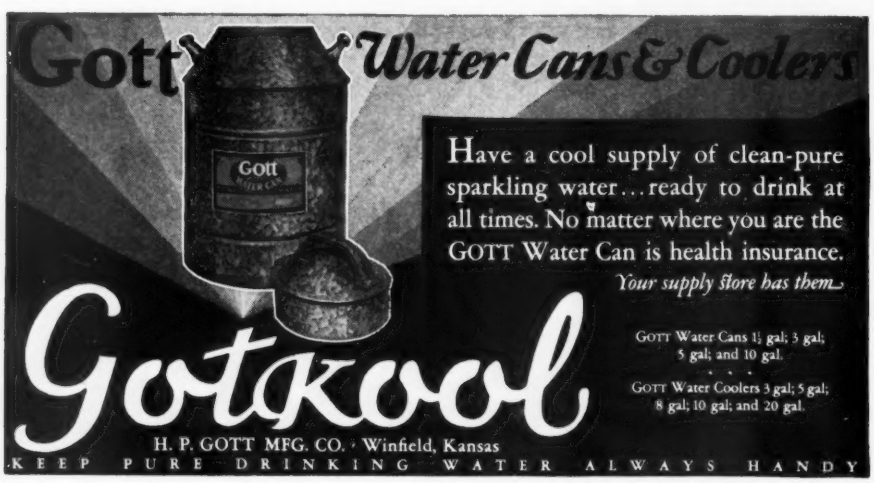
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KEEP PURE DRINKING WATER ALWAYS HANDY

—*Photo by Blank-Stoller, Inc.*

A. C. McLaughlin

A. C. McLaughlin Resigns From Associated

LOS ANGELES, Aug. 15.—Announcement has been made of the resignation of A. C. McLaughlin, executive vice president and director of the Associated Oil Co., effective August 1.

Although no official statement has been made concerning his future activities it is understood that Mr. McLaughlin will continue as consultant for the Southern Pacific Railroad.

L. F. Bayer, vice president in charge of manufacturing will assume the duties formerly performed by Mr. McLaughlin, although the position of executive vice president has been abolished.

Other changes in the personnel of the Associated Co. announced included the resignation of L. J. King, vice president in charge of production, because of ill health. J. H. Jenkins, general manager of the producing division has been appointed to assume the responsibilities for the production group.

P. G. Williams has resigned as financial assistant to the president after more than twenty years of active service with the company. P. L. Lacombe has been appointed manager of the finance division, the position of financial assistant to the president having been abolished.

The Selden Co., Pittsburgh, has off the press a booklet describing its new contact sulfuric acid manufacturing process, developed chiefly by A. O. Jaeger.

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REFINING with LIQUID SO_2

Refine your distillates with liquid SO_2 and avoid

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LIGHT RELAY

as Mechanical Fire Marshal to Warn of and Put Out Fires

CLEVELAND, Aug. 16

A MECHANICAL fire marshal who not only watches for fire with unceasing alertness, but also instantly turns the fire extinguisher upon it if a blaze does break out, may soon be enlisted as an aid to the human fire marshals who are doing so much to keep down fire hazards in our refineries.

This is the "light relay" and photo electric cell that have been developed by the Westinghouse Electric & Manufacturing Co. It acts through the play of light on a sensitive mechanism.

Still in its infancy as far as application to industry goes, the device is said by scientists to have almost limitless possibilities. As a refinery fire fighting instrument it can be rigged up so that the first flash of flame will cause the device instantly to operate a valve turning foam, water, carbon tetrachloride or any other extinguishing agent upon the blaze. Or it may be so set that a column of smoke by shutting off the light from it will cause it to act.

Also, the photo electric control device may be made to sound the fire alarm as well as turn the extinguisher on the blaze.

The device is thus described by the engineering department of the Westinghouse company:

"The 'light relay' has been designed to fill a long felt need for a reliable device which will operate on interruption of light. It has also been designed to operate for long periods of time with little or no attention. It is in no sense a device requiring constant attention to keep it in working order.

"Electrical equipment may be protected by the light relay so that, in case of a fire, it may be extinguished before a great amount of damage has been done. Among the various items of electrical equipment which may be protected by this means are generators, transformer and switch vaults, automatic substations, etc.

General Description:

"The light relay consists of two units, one of which is the light source unit. The other is called the photo electric amplifier and control unit.

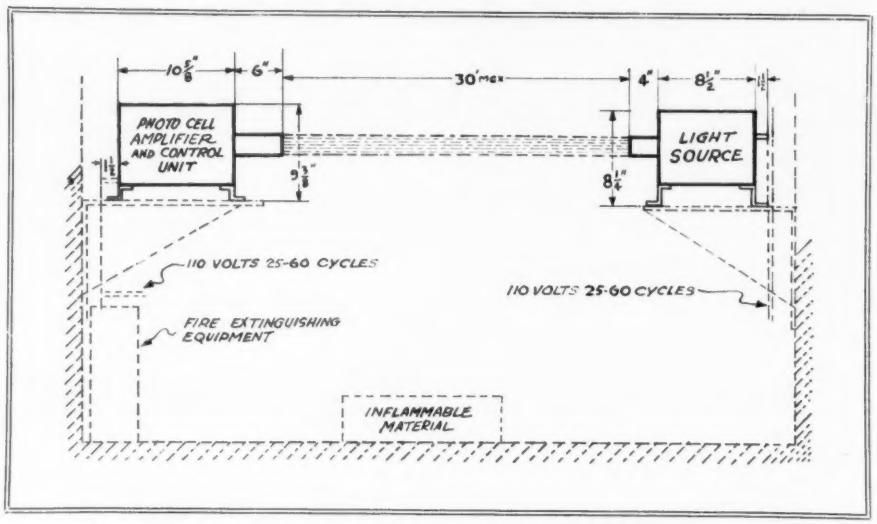
"Each unit is complete in itself and operates from 110 volts 25-60 cycles. Each unit has three brackets by which it may be mounted on any rigid surface. Tubes extend from the front of the unit to protect the lenses, and also in case of the photo electric amplifier and control unit, to keep incident light such as sunlight from entering the lens. The case of each unit is made from electrically welded sheet steel. They have a very durable black baked finish.

Mounting:

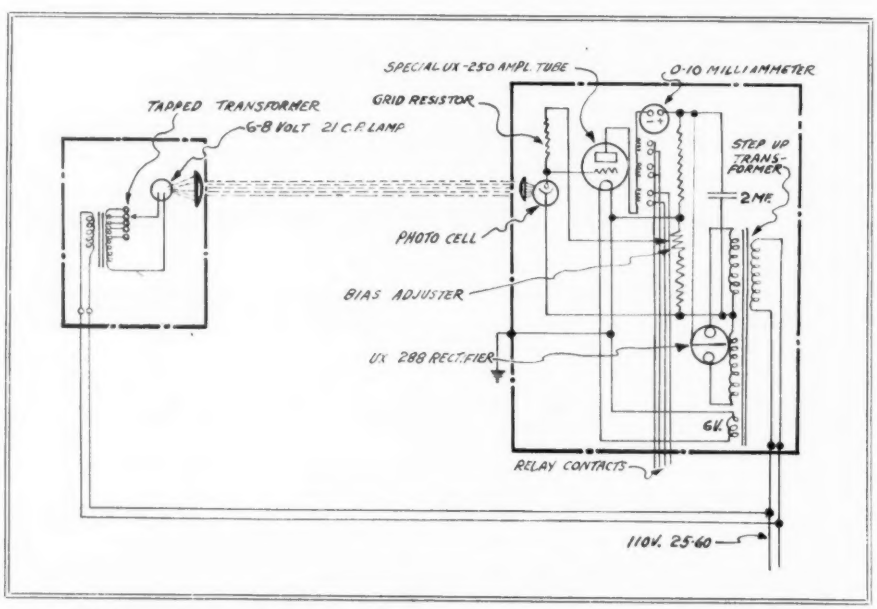
"The two units must be so mounted that they are rigidly supported, otherwise unreliable results may be expected due to the light beam not staying in focus. The two units may be set at any distance apart up to 30 feet, as shown in the accompanying sketch, but it should be borne in mind that the closer they are the more positive the operation.

Light Source Unit:

"The light source unit is about 8 by 8 by 8 inches, not including the



Light relay mounting scheme. Courtesy Westinghouse Electric & Manufacturing Co.



Wiring diagram, light source unit and photo electric amplifying and control unit. Courtesy Westinghouse Electric & Manufacturing Co.

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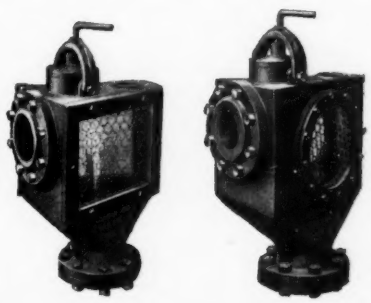
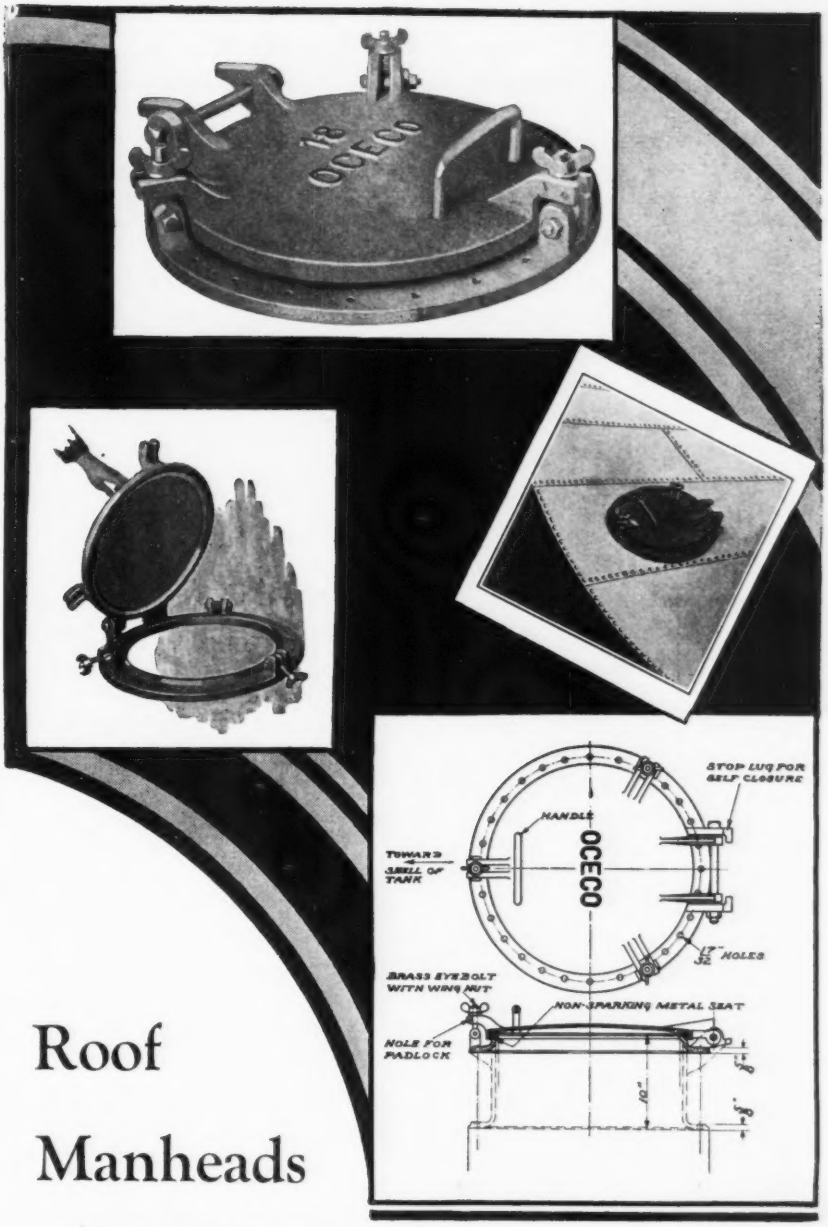
Look Boxes and Manifolds *for* Modern Refinery Installations

Write for Catalog 38.

JOSEPH REID GAS ENGINE CO.
Oil City, Pa.

Export Representative—
Oilfield Equipment Co.
30 Church St., New York City





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Nowhere will you find engineers possessed of a better understanding of your chilling problems. The entire Vilter staff is ready to cooperate with your engineers to the fullest degree. Write, now, for details.

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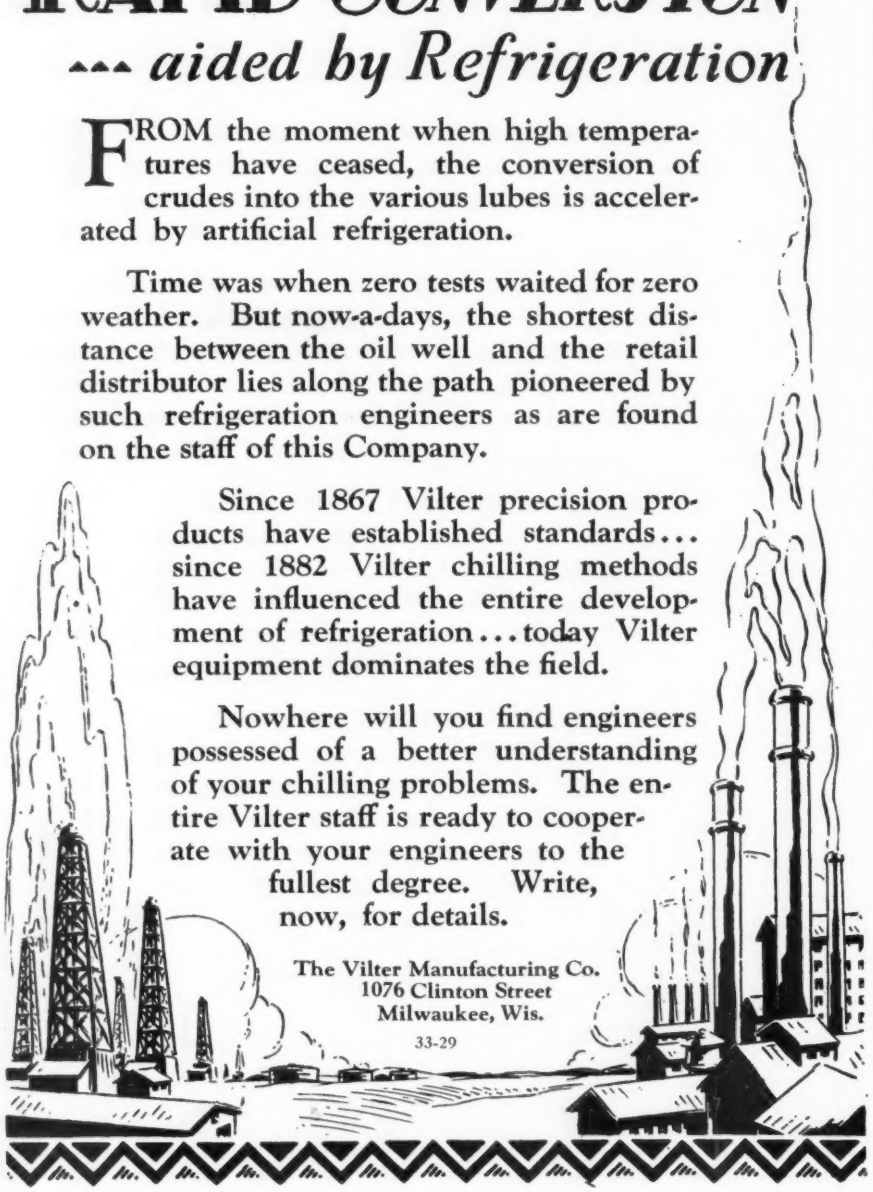
Milwaukee, Wis.

33-29



CONTACT GAS

... a better colored gas
... a more stable colored gas

CONTACT filtration can stand being emphasized.

Two results alone make it worth while—the color of gas is better, the color is more stable.

Sweetland Filters are the units used for this work. Just recently an important refinery ordered a battery of the latest units for contact work.

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CHICAGO, 565 Washington Blvd. SALT LAKE CITY, Felt Bldg.
LOS ANGELES, Central Bldg. LONDON, W. C. 1, 150 Southampton Row
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pipe which covers the lens, and consists of a spherical condensing lens, a small concentrated filament lamp, a focusing device, and a transformer. When properly focused, the light source unit will give a beam of light which is essentially parallel.

Lamp:

"The light source used is a low wattage incandescent lamp which is run at low filament voltage in order to obtain long life. Its life at the voltage used is such that no replacement should be necessary for a considerable period of time.

Focusing Device:

"The focusing device is such that an accurate adjustment can be made and maintained easily. Special precautions have been taken to eliminate the possibility of the lamp being thrown out of focus by mechanical vibrations and disturbance.

Lens:

"The spherical condensing lens is mounted on the inside front of the steel case and is easily removed for cleaning.

Photo Electric Amplifier and Control Unit:

"The photo electric amplifier and control unit is about 11 inches by 9½ inches by 10 inches, not including the pipe which covers the lens. It is responsive to light impinging on the lens at the end of the steel case. The unit includes a transformer, rectifier, photo electric cell amplifier unit, milliammeter and relays. The rectifier supplies direct current to the photo electric cell amplifier unit.

Operation:

"Briefly stated, the operation is as follows: When no light is on the photo cell, the bias adjuster is varied until the milliammeter reads 10 milliamperes. The light is then turned on and focused until a current of 6 milliamperes is obtained. If the light is then interrupted, the current will rise and the relays will perform so as to operate any device connected to them.

Relays:

"There are three relays in the plate circuit through which the amplified current has to pass, as may be seen from the circuit diagram. The relay contacts are good for 1 ampere non-inductive load at 110 volts.

"One of these relays is set to pick up when the amount of light cut off is that at which it is desired to perform a given operation.

"The other two relays are for the purpose of ringing an alarm if the adjustment of the device becomes incorrect for any reason, even though none of the light between the units has been cut off.

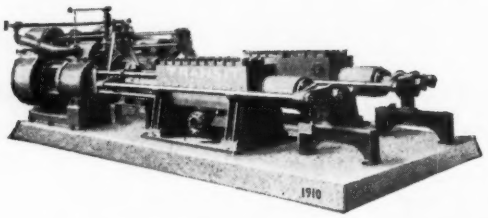
"One of the relays function immediately if the amplified current drops more than a certain amount, and the other relay if the current

If all gasoline were Dubbs Cracked Gasoline there would be no need of using any chemical dope

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

Rigid — Strong
TRANSIT HOT OIL PUMPS



The above is an illustration of a very representative Hot Oil Pump, one of the complete line. Great rigidity and strength are built into TRANSIT Hot Oil PUMPS just the same as they have always been built into other TRANSIT PUMPS.

The pump illustrated is a 32 & 48 x 8½ x 24" TRANSIT Hot Oil PUMP. Capacity 329 gallons per minute, 1500 lbs., pressure, and oil up to 1000° F., in temperature.

NATIONAL TRANSIT
Pump and Machine Company
Oil City, Pa.

New York Philadelphia Pittsburgh Cleveland
Los Angeles Tulsa Houston

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WAX PLANT EQUIPMENT

Filter Presses — *Wax Moulding Presses*
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Wax Testing Presses — *Paraffine Wax Sweater Plants*
Complete Wax Plants designed and built
Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment
Oil Burning Systems — *Complete Power Plant Equipment*

BETHLEHEM STEEL COMPANY, *General Offices, Bethlehem, Pa.*

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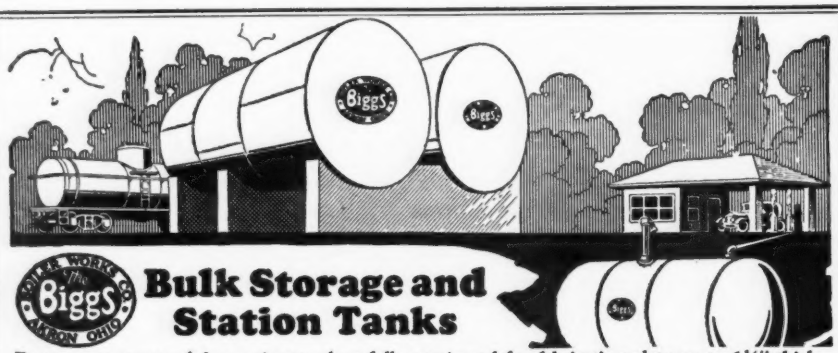
New York Boston Philadelphia Baltimore Washington Atlanta Pittsburgh Buffalo Cleveland Detroit Cincinnati Chicago St. Louis San Francisco Los Angeles Seattle Portland



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Forty years successful experience; plant fully equipped for fabricating plate up to 1½" thick.
Pressure Stills for Cracking Process - Fractionating Towers - Dephlegmating Towers, Bubble Towers - Heat Exchangers - Agitators - Steam Stills - Crude Stills - Condenser Boxes, Run Down Tanks - Blending Tanks - Hemispherical Tanks - Blow Cases - Acid Tanks, Compounding Kettles - Storage Tanks to 80,000 Barrels - Smoke Stacks and Breechings, etc.

THE BIGGS BOILER WORKS COMPANY, Buchtel and Bank Streets, AKRON, OHIO
Eastern Sales Office: 50 Church St., New York *Western Sales Office:* 53 South Dearborn St., Chicago

rises too high from the normal value. These relays are so set that an alarm will be sounded due to incorrect adjustment so that the unit can be corrected before false operation occurs due to tripping of the first mentioned relay.

Rectifier:

"The rectifier used is a low glow discharge tube which is extremely constant and has a very long life.

Amplifier Tube:

"The amplifier tube used is very constant throughout life. It is not subject to the same limitations as are the ordinary vacuum tubes used in radio receiving sets. This tube has very long life due to the fact that it is manufactured in a special way, and that the filament is run at low temperature and the load drawn from it is low in comparison to the size of the tube.

Voltage Compensation:

"Due to the fact that any change in line voltage has a decided effect on the candle power emitted by the light source, it has been found necessary to provide voltage compensation which will take care of any normal voltage fluctuation of the supply circuit. This has been worked out in a very simple and satisfactory manner. With the voltage compensation provided, the line voltage may vary by plus or minus 5 per cent and the operation will still be correct.

Ratcliffe Is Succeeded By R. C. Wheeler

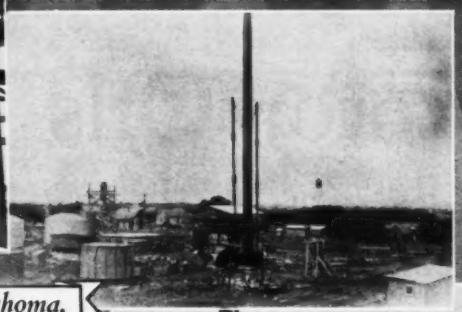
LOS ANGELES, Aug. 19.—R. C. Wheeler, general superintendent of the gas department of the General Petroleum Corp., will succeed George L. Ratcliffe as manager of the department, it was announced this week. Mr. Ratcliffe resigned to become president of the California Talc Co. of Los Angeles, manufacturers of rotary mud compounds.

Mr. Wheeler has been with the General Petroleum since 1918 when he began work in the research laboratory. During the war he worked for the government in the development of high explosives. Before the war he gained knowledge of natural gas through his connection with the United Gas Improvement Co. of Philadelphia.

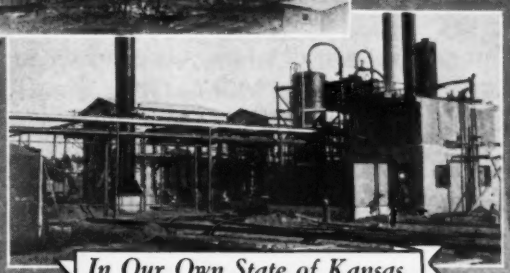
No successor has been named to Mr. Ratcliffe's position as president of the California Natural Gasoline Association. The directors will elect a new president on Aug. 15. Mr. Ratcliffe recently was elected president of that group for the third time. He has been untiring in developing that organization. He was a vice president of the Natural Gasoline Association of America also.

In entering his new work Mr. Ratcliffe brings to a close 16 years of natural gasoline industry affiliation.

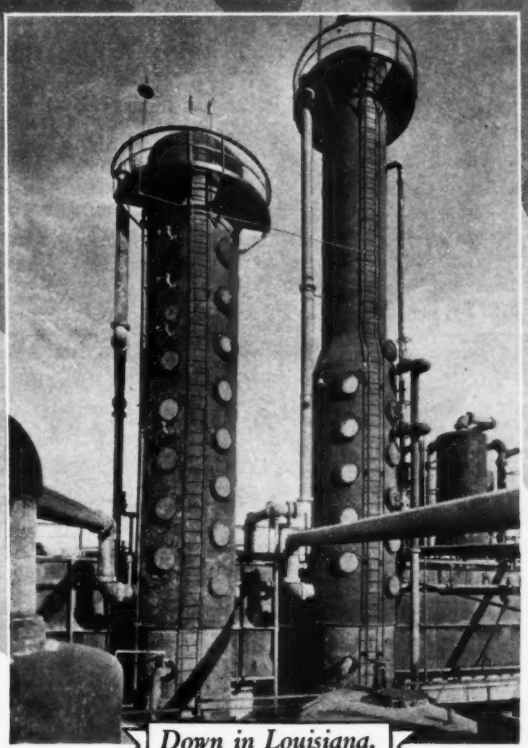
Under Construction in Oklahoma.



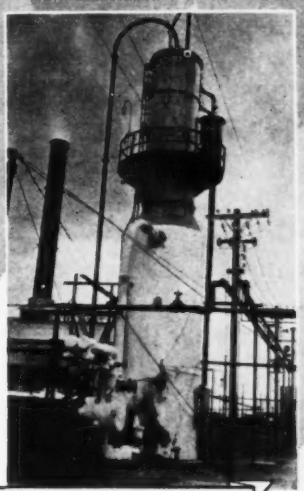
"Up" in Oklahoma.



In Our Own State of Kansas.



Down in Louisiana.



Another Kansas Unit.

WINKLER - KOCH ENGINEERING COMPANY SERVICE for over four years has shown the country's leading refiners the way to larger margins of profits on their operations. This service is complete—just turn over the plot of ground to us—and we'll deliver the plant to you in operation, with a fulfilled guarantee of performance.

This highly specialized and competent service is devoted exclusively to the problems of refinery engineering. A letter or wire asking us for full details entails no obligation—and may be the first step toward increasing *your* profits.

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100% Pennsylvania Motor Oils

—*with an "extra" which costs you nothing*

You get an "extra" when you contract for FREEDOM 100% Pennsylvania Motor Oils—it costs you nothing.

The "extra" is that you get the product of an organization 50 years old this year—an organization which has *specialized* in the study and refining of 100% Pennsylvania Crude.

This line of motor oils is the blend of highly refined products from two FREEDOM refineries—460-470 flash Bright Stock (Sharples process) refined at the Coraopolis plant—100% Pennsylvania Crude high flash Neutrals refined at the FREEDOM plant.

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FREEDOM 100% Pennsylvania Motor Oils will please your customers and help expand your business. A half century of fair dealing guarantees it.

Write for quotations. Immediate shipment can be made in tank cars, compartment tank cars, barrels, or drums.

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THE FREEDOM OIL WORKS COMPANY
Freedom, Penna.
Established 1879
Refineries at Freedom and Coraopolis, Pennsylvania

FREEDOM

New Equipment

Oilfield Equipment Co., 30 Church St., New York, has been appointed eastern distributor for Shand & Jurs Sales Co., making hydraulic internal valves for oil refinery and storage tank fittings. The Oilfield company will also handle the export business for the latter, according to R. M. Young, president of Shand & Jurs company.

* * *

Columbian Steel Tank Co., Kansas City, Mo., has designed a new, one-piece manhole cover for truck tanks, pressed, cupped and threaded from a single piece of sheet steel. It is wrought from a 10-gauge circle of steel and weighs seven pounds, the old type cast iron type weighing 20½ pounds.

* * *

A. Y. McDonald Mfg. Co., Dubuque, Ia., has placed on the market a new angle check valve for gasoline pumps, which is designed to eliminate the foot valve and all attendant troubles. The seats and discs are machined to a gas tight fit. As the gasoline is pumped, the disc raises, allowing an unrestricted flow of gasoline. When the flow stops, the disc seats so as to eliminate any gasoline leaking back.

* * *

Fruehauf Trailer Co., Detroit, Mich., has elevated August C. Fruehauf to the chairmanship of the board at a meeting of the board of directors July 25.

Harvey C. Fruehauf was elected president; Harry R. Fruehauf, vice-president and director of purchases; Earl L. Vosler, vice-president and treasurer; G. W. Chamberlin, vice-president and director of sales; and Roy W. Jacobs, secretary and assistant treasurer.

Mr. August Fruehauf has been active in the transportation field for 35 years and is a pioneer in the development and manufacture of automotive type trailers.

* * *

Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., describes its Sharples super centrifuge oil purifier in leaflet 202400. Application, chief features, operation and construction of the units are explained. The units can be had at capacities from 180 to 1200 gallons.

* * *

Merco Nordstrom Valve Co., Oakland, Calif., has completed a larger plant at Oakland which about doubles the amount of manufacturing space formerly available and provides special engineering quarters. The company makes plug cock valves for gasoline, oil and chemical industries.

Visiting Around the Refineries

By Paul Truesdell

National Petroleum News

REFINERY men charged with the responsibility of operating and maintaining steam boilers will be interested in an article on embrittlement of boiler steel, by H. F. Rech in the August issue of Mechanical Engineering. Mr. Rech is consulting engineer, power and maintenance section, works managers committee, General Motors Corp.

A series of boiler failures in plants of General Motors led to an investigation which showed the failures were due to the embrittlement of the metal, sometimes spoken of as "caustic embrittlement." The report says:

"The mechanism of this type of failure appears to be the cracking of stressed metal in boiler drums and tubes when the feed water is high in carbonates, with little or no sulfates present. Microscopic examination of the affected metal shows inter-crystalline cracks which are thought to be caused by the breaking up of the binder between the grains of the steel by caustic which is absorbed by the steel along the lines of stress.

"Because the cracking has been found only in the stressed metal of boilers, methods of construction to avoid such stressing have been adopted. Strict attention to the character of the boiler water, however, will prevent the embrittlement of metal even when stressed."

It seems possible that the findings stated in this report may cause further study of water treating methods and systems at some plant.

* * *

PARAGON REFINING CO. is installing a gasoline recovery plant at its refinery in Toledo, Ohio. The recovery plant is of the latest oil absorption type and is to be connected to the crude still, Dubbs cracking units and gasoline storage tanks. It is near completion.

It is expected to recover on an average of 3,000 to 4,000 gallons a day of absorption gasoline. The plant is being built by the Burrell-Mase Engineering Co. of Pittsburgh.

* * *

STANDARD OIL CO. of Indiana has recently completed construction of two Cross cracking units at the Whiting refinery and they are understood to be in operation. The units have a charging capacity of 3000 barrels a day each of gas oil. A similar unit is being built in the plant of the Dixie Oil Co., a Standard of Indiana subsidiary, at Superior, La.

Installation of the Cross units makes at least three liquid phase cracking processes that are being used by the Standard of Indiana, namely the Holmes-Manley, the Cross and the Burton processes.

It appears to be a testimonial to the soundness of Dr. Burton's process and equipment that a great many of the Burton units are still in operation, despite improvements that have been made in the cracking art since they were installed. Many of them have been modernized to take advantage to some extent of the later knowledge and technology but some of them, it is said, have been changed very little.

Efficiency obtained from them is high enough, it seems, so that it is more profitable to keep running such Burton stills as are in good physical condition, than to tear them down and replace them with the latest equipment.

* * *

THE development of anti-knock fuels might be likened to a competition in marksmanship among refiners and between refiners and the Ethyl Gasoline Corp. with the latter setting the ranges and prescribing the size of the target. Looked at in that light, the Ethyl Gasoline Corp. has again added a few yards to the range and reduced somewhat the size of the bullseye at which the refiners are aiming.

By increasing the anti-knock value of the Ethyl Gasoline standard, (N.P.N. July 31, 1929, Page 25) and increasing the minimum volatility of the gasoline that must be used for treating with Ethyl, the corporation has made it more difficult for the refiner seeking to produce a satisfactory fuel for present day cars wholly from petroleum, to achieve his aim.

On the other hand, the new lower schedule of prices for Ethyl fluid and the reduction of the gallonage royalty charge apparently may encourage more refiners to take on the sale of Ethyl gasoline, whether under their own brands or under the Ethyl brand.

It seems possible that the Ethyl corporation may have in mind to make it easier for the average refiner to take on Ethyl gasoline than to attempt to make in his own stills a product to compete with it.

If that is the object aimed at it will probably be only partly successful for the refiner generally is individualistic in his views and he is also resourceful.

* * *

USE of waste heat from cracking stills or other pipe stills for generating or superheating steam is a possibility that so far has been practically overlooked by refinery operating men, it is pointed out by L. S. Bale, manager of the two Cleveland refineries of the Standard Oil Co. of Ohio. Each of the new cracking units recently completed at the No. 1 Cleveland plant of the Standard has a bank of tubes below the reboiler section in the furnace, which serve to superheat steam used in process work. However, a considerable amount of heat goes up the stack in the average pipe still which could profitably be used for generating steam. It seems possible that in some refineries almost all the plant's requirements for steam could be taken care of by utilizing the waste heat if proper equipment were installed in the pipe stills and cracking still furnaces.

The late B. N. Broido, engineer of the Superheater Co., did considerable work on this line and wrote a very interesting paper on steam generation in pipe stills along with the distillation of oil. The paper was published in serial form in NATIONAL PETROLEUM NEWS several years ago.

Cracking

The development and practice of cracking processes have been followed consistently in National Petroleum News since pressure distillation first became a factor in the refining industry.

Here are 38 cracking stories that have been published the past 12 months:

1929

Hydrogenation to be used first in conversion of fuel oil July 10, p. 27
Extra soaker on tube-tank battery makes 2000-hour runs June 26, p. 78
Cracking, lube making from Ranger crude June 26, p. 80; June 19, p. 78; June 5, p. 73
Light cracking, de-salting, distilling West Texas crude May 29, p. 65
England to have vapor phase plant to crack coal tar oil May 29, p. 68
Heavy cracked residuum produces specification fuel oil May 15, p. 81
Control gasoline and fuel quality in cokeless cracking process May 1, p. 69
One cracking unit is now whole refinery May 1, p. 76
Patent club offers to license cracking plants perpetually Apr. 24, p. 37
Operation of Gyro process described Apr. 24, p. 40-a
Cracking plants now designed for individual plant needs Apr. 24, p. 83
Cracking still coke, acid sludge, make fuel briquets Apr. 10, p. 68
Cracking costs handed knockout in continuous 60-day run Apr. 3, p. 73
Gyro to license vapor phase process March 13, p. 37
Siamese skimming, cracking plant gets 60% gasoline March 13, p. 69
Improving fractionation in cracking systems March 13, p. 78
Washing heavy cracked naphtha with soap gives color Feb. 20, p. 61
Refinery gets 70% light oil yield Jan. 9, p. 72
How to make benzol from natural gas Jan. 9, p. 79
Tailors refinery to fit the market Jan. 2, p. 26

1928

Factors affecting safe limit for gum in gasoline Dec. 19, p. 75
Sulfur in gasoline Dec. 12, p. 31
Coating to protect cracking units from corrosion Dec. 12, p. 86
Developments in refinery technology Dec. 5, p 79
Formation of acetic acid in heat and pressure cracking Dec. 5, p. 113
Cracking will have to make fuel for 75,000,000 cars Nov. 21, p. 88
Makes gasoline at low cost Nov. 7, p. 61
Injecting heated gas to vaporize oil Nov. 14, p. 35
Hot oil recirculating unit makes finished gasoline Oct. 17, p. 82
High pressures, corrosive crudes and heat exchange problems Oct. 17, p. 88
Percolating filter plans analyzed Oct. 17, p. 94
Economies in modern gasoline plant Oct. 17, p. 125
Better fractionating equipment saves heat Sept. 26, p. 91
Phases of refinery operations discussed Sept. 19, p. 64
Leamon continuous treating process for cracked gasoline Aug. 22, p. 65
Light fractions from stabilizer offer new opportunities July 25, p. 21

Back copies of any of the above issues are 25c a copy. On issues that are exhausted, photostats will be furnished at 40c per page. Libraries in the larger cities generally keep back files of National Petroleum News complete.

National Petroleum News
Main Office: 1213 West Third St.
Cleveland, Ohio

New Loading Rack Prevents Accidents to Piping

CLEVELAND, Aug. 16

THE Swan-Finch Refining Co. has recently built a new loading rack at its refinery in Warren, Pa. This plant was formerly the Seneca Oil Works, presided over for years by George P. Brockway.

The new rack replaces an old wooden structure. There is not a stick of wood in it. The framework is of structural steel and the walkway of concrete. It is long enough so that seven cars can be loaded at once.

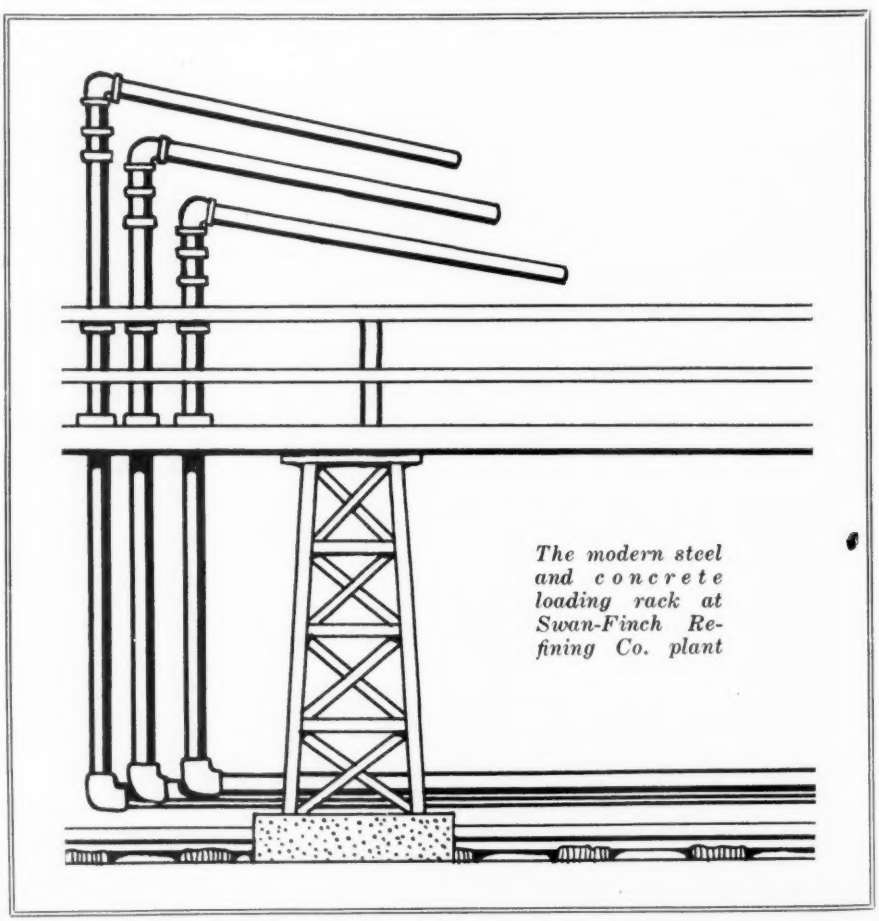
There are two particularly interesting features about the rack and the method of loading. The principal feature is that the three loading lines stand at different heights above the rack as shown in the accompanying sketch. Three products are loaded out, gasoline, kerosene and fuel oil. Each has its own line and each line is at a different height.

This makes it possible, as pointed out by Harry S. Peterson, plant superintendent, to walk along the ground and tell what products are being loaded by simply glancing up to see which lines are swung out over the car domes.

Another feature is that the loading is done through a length of galvanized pipe which fits closely like a sleeve over the end of the loading pipe. When this sleeve is fitted, the loading line will reach down to the bottom of the tank car, thereby discharging the product below the surface of the oil.

The use of the sleeve also avoids damage to the rack or piping if a car is accidentally moved while loading. If the car moves one way the sleeve simply pulls off the pipe and if it moves the other way, there is considerable room for the sleeve to slide up the pipe and if forced too far, the sleeve would bend up before any damage was done to the stationary piping.

Mr. Peterson says it was a periodic occurrence for the rack to be pulled down and the piping wrecked by the unexpected movement of a car under the old loading system.



The modern steel and concrete loading rack at Swan-Finch Refining Co. plant

The Inevitable in Gas Tax Tendencies

By Frank E. Packard*

Presented before North American Gasoline Tax Conference, Detroit, Aug. 8

THE increasing rate of taxation in this country to meet an even more rapidly growing cost of government is something upon which the American people will have to call a halt, or we will march directly into the socialistic state.

The radical today sees in taxation and control of prices and wages through interest rates the means for the control of society. From a paternalistic state it is a mere step to socialism and communism.

The example of the gasoline sales tax is resulting in a widespread and general orgy of indirect taxation which, unless checked by the people, will constitute a serious menace to the American ideals of government.

The above are high points in the address on the "Inevitable in Gas Tax Tendencies," presented by Frank E. Packard, general and tax attorney for the Standard Oil Co. of Indiana, before the North American Gasoline Tax Conference, in Detroit, August 8.

The principal portion of Mr. Packard's address follows:

The total expenditures of the federal government in 1903 were $521,000,000 as compared with $3,848,000,000 in 1928, or an increase of 640 per cent in the 25 years. The national income during the period from 1903 to 1928 increased from $20,500,000,000 to $90,000,000,000, or an increase of 339 per cent. In 1903 the federal government cost 2½ per cent of the national income while in 1928 it cost 4 per cent. The burden per person gainfully employed during the period 1903-1926 increased from $16.50 to $74.29.

Turning to the states we find the story repeated. In 1903 the burden of state government was $155,000,000 and in 1927 it had increased to $1,727,000,000 or more than 1000 per cent. In 1903 the burden per person gainfully employed was $4.91 and in 1926 it was $29.28. As indicative of the recent increase in the state tax burden, I call your attention to the fact that in 1915 the burden of state government was $445,000,000 and in 1927, $1,727,000,000, an increase of 249 per cent. In 1903 it was eight-tenths of one per cent of the national income and in 1926, 1.6 per cent.

George Lord of this city, for years chairman of the Michigan Tax Commission, and one of the outstanding tax authorities in the United States, was reported by the press to have said that the public expenditures of the State of Michigan had increased in the past 10 years from $85,000,000 to $248,500,000, or 192 per cent, while the wealth of the state has increased but 93 per cent.

Speaking of one of the counties of the state he said that its total tax burden had increased during the decade from $1,903,000 to $14,455,000, or 659 per cent, while the wealth had increased 257 per cent; that the county's share of the taxes of the state increased 380 per cent; the school taxes 673 per cent; the highway taxes 790 per cent; the city taxes 1055 per cent; and the village taxes 371 per cent.

A certain township in this county had increased its burden of taxes during that period 326 per cent; its school taxes 410 per cent; its highway taxes 428 per cent and its village tax 249 per cent; while taxable wealth had increased 110 per cent. The story of Michigan is the story of every state in the union.

The burden of cities, counties and townships has kept pace with the states and the nation. In 1903 their cost was $706,000,000 which had increased in 1926 to $4,084,000,000 or $3,278,000,000 a percentage increase of 465 per cent. The burden per person gainfully employed increased during this period from $22.35 to $94.60. The percentage of national income increased from 3.4 per cent to 5.2 per cent.

*General and tax attorney, Standard Oil Co., Indiana, Chicago.

> YOU and other gentlemen will continue to urge higher taxes and more revenue, for what seem to you to be perfectly laudable ends, until sleeping public opinion suddenly becomes an active and relentless fury, which will wipe out your road building and your paternalistic schemes. Your roads will end in the mud short of destination and there will be no money to repair the holes in their surfaces. In other words, gentlemen, when cost of government is taking 25 per cent of the total income of the people of the United States, or perhaps 20 per cent or perhaps 18 per cent, nobody knows where the break will be, your iridescent bubble will explode and you will secure for some time to come, with great difficulty, the necessary revenues to carry on the necessary governmental activities.

Frank E. Packard

The other day at a tax conference at Sheridan, Wyoming, attended by county assessors, treasurers, commissioners and clerks as well as state taxing officials and a few property owners, the state and local taxing officials consumed a large portion of one afternoon wrestling with the problem of railroad ties cut on the national forest preserves and which were not taxed until they became the integral part of some railroad. The officials finally decided, if possible, to lay an excise of 25 cents each on these ties.

I can see nothing in the future but that either the people will become conscious of the tremendous burdens imposed upon them, and call a halt, or we will march directly into the socialistic state.

At the present rate of increase in tax burdens, it will take only a generation or two to confiscate private property. This is not a rhetorical flourish, but sober judgment based upon the history of public finance, and an analysis of the trend in the past 25 years, which I have attempted to outline above. The radical today sees in taxation and in control of prices and wages through interest rates, the means for the control of society. From a paternalistic state it

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is a mere step to socialism and communism.

It is my judgment that the example of the gasoline sales tax is resulting in a wide spread and general orgy of indirect taxation which, unless checked by the people, will constitute a serious menace to the American ideals of government. You and I, of course, believe in the final saneness of the judgment of the people. Their correction of government may not always be wise, but it is usually thorough.

Pennsylvania Bond Suit To Be Heard Aug. 19

HARRISBURG, Pa., Aug. 16.—Hearing will be held Aug. 19 on the petition in equity of the Pennsylvania Independent Oil Men's Association against the secretary of the Department of Revenue of Pennsylvania, to restrain the department from requiring a bond from gasoline dealers of a type which, the association contends, is virtually impossible to get. The suit for the association was brought in the name of Amos S. Titzel, a dealer.

Before dealers can get permits to operate in Pennsylvania they are required to post a bond that is satisfactory to the Department of Revenue. This bond is of the non-cancellable type and was to have been large enough to cover five-sixths of the gasoline taxes paid the state by gasoline dealers last year. Permit forms have not come from the printers so dealers have been operating since Aug. 1 without state licenses.

The size of bond requirements has been reduced by the department but all other objectionable features have been retained. Instead of the five-sixths provision, the department of Revenue has ruled that the bond be only large enough to cover the estimated monthly tax collections of the dealers.

Private individuals are permitted under the ruling to bond the dealers, but under the previous specifications of the bonds, Ray A. Overholser, secretary of the Pennsylvania association, pointed out, individuals also could bond the dealers if the dealers would post an impossible amount of assets to guarantee the bond.

Under the new specification for the size of bonds the minimum is to be $500 if the dealer's estimated gasoline tax is less than $500 a month and the maximum is $100,000. Previously there was no maximum and one company would have had to post a bond of more than $1,500,000.

ON THE LAZY BENCH

National Petroleum News

Not Posted

Daughter—"Dad, I want some money for my trousseau."

Father—"But, my dear child, I didn't even know you you were engaged."

Daughter—"Good heavens, Father, don't you ever read the papers."

—The Look Box

* * *

Miss Nomer

"Have you seen Lucy?" asked one of the guests when they met in the smoking room. "She's here as the Essence of Innocence."

"Is that what she's representing?" the other retorted in amazement. "I thought by the brevity of her costume that she came as the Spirit of Forgetfulness."

—Magnolia Oil News

* * *

He—"May I hold your Palmolive?"

She—"Not on your Life Buoy."

He—"Then I'm out of Lux?"

She—"Yes, Ivory formed."

—Field Flashes

* * *

Nations aren't likely to beat their swords into plowshares while beating their rivals into oil-fields.

—The Valve World

* * *

Patient: "Doctor, how are my chances?"

Doctor: "Oh, pretty good, but I wouldn't start reading any continued stories."

—Skelly News

* * *

Warden: "It is our custom to let a prisoner work at the same trade in here as he did outside. Now, what is your trade—shoemaker, blacksmith, or—"

Prisoner: "Please, sir, I was a traveling salesman."

—Heil Quality News

* * *

Grandpa: "You never see a girl blush nowadays. When I was a young man it was different."

Ann: "Oh, granddad, what did you say to them?"

—Southwestern Bulletin

* * *

By the way, when you have trouble deciding which is the lesser of two evils, choose the good looking one.

—Union Oil Bulletin

* * *

"Did you hear that Brown was drowned last week?"

"No, how did it happen?"

"He drank too much in Venice and tried to lie down in the gutter."

—Heil Quality News

Boss: "Yes, I want an office boy. Do you smoke?"

Boy: "No thank you, sir, but I don't mind having an ice cream cone."

—The Sohioan

* * *

"My sugar daddy has a heart of pure gold."

"Yes, it's surprising what treasures you'll sometimes find in an old chest."

—The Booster

* * *

Sandy—"Did you hear of the death of our 'bridge' friend?"

Donald—"No. What happened?"

Sandy—"They buried him with 'simple honors.'"

—The Pure Oil News

* * *

Dora: "Was the western talkie any good?"

Flora: "Sure. You could even hear the cattle rustling."

—Isotopics

* * *

"They say a good way to keep happy is to sing at your work."

"Well, my dad is out of luck, then."

"How come?"

"He's a glass blower!"

—Barnsdall

* * *

A Definition

"Why is a girl's lover called her suitor?" asks L. C.

Because he either does or he doesn't.

—Harvester World

* * *

Missionary—Why do you look at me so intently?

Cannibal—I am the food inspector.

—Booster

* * *

Paid for Its Frivolity

Machine careens into ditch and hits tree returning from dance.

—Isotopics

* * *

Interesting

Fair Young Real Estate Agent: "Could I interest you in Culver City?"

Susceptible: "Lady, you could interest me anywhere, any time."

—Magnolia Oil News

* * *

"Try to laugh that off," remarked the wife as she finished sewing on a vest button with wire."

—Barnsdall

* * *

Customer—"Have you something that will cure fleas on a dog?"

Druggist—"I don't know, sir. Can you tell me what ails the fleas?"

—Field Flashes

SELLING FUEL OIL for DOMESTIC USE

THERE are no books written to tell you how to handle this business profitably. It is the fastest growing use for oil and a mighty profitable one—if you know how to handle it.

You can learn this business in only one way—thru experience. I have sold fuel oil for domestic use for many years. My business has been profitable.

As a consultant I have helped others—and I am now in a position to work with a few more concerns; those in the business who are not making good profits or those planning on handling fuel oil. My service covers every branch of the business.

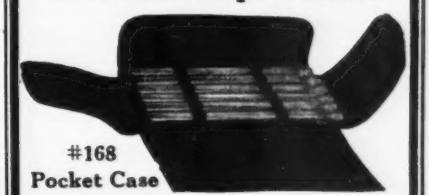
W. A. Dalton

Retail Fuel Oil Consultant

1000 Madison St.

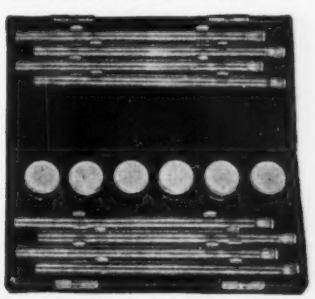
Gary, Ind.

Pocket Sample Cases



#168 Pocket Case only $4.00

Sturdily constructed from black cobra grain cowhide. Lined with red plush. Contains six bottles. 9"x1½".



175—This case contains eight 9-inch bottles and six grease jars. Made from black cobra grain cowhide, lined with red plush. Has two serviceable nickel slide catches, price including metal capped corks, only $7.00

Less 10% for Cash

Other styles in our FREE Catalog

L-U-C-E

Builders of Sales Luggage

614 Delaware Kansas City, Mo.

How New Station's Gasoline Gallonage Was Brought Up to 1200 a Day

By Ruel McDaniel

COLORADO SPRINGS, Colo.

FOR several years Jack DeBoer had been in the tire business in Colorado Springs, when he finally decided to incorporate and make it possible for six of his best employes to become stockholders in the company.

About a month after this move, there came an unexpected opportunity for the firm to acquire a busy corner diagonally across the street from its old location. This looked to Jack DeBoer and his associates as if it were their chance to go into the tire business on a modern super-service scale.

Accordingly, they bought the site, rearranged the place to meet with the company's needs and moved in about the first of June, 1928. In June, 1929, the company sold 36,000 gallons of gasoline, 1200 gallons a day. Tourist business did not contribute heavily to the volume either, because the tourists don't begin to come to Colorado in noticeable numbers until around the Fourth of July.

When DeBoer and his partners started talking about adding gasoline, oils and a grease service to their tire business, they were told by more than one well-meaning friend that they had better stay away from gasoline.

"No money in it," the friends said, "especially where you handle it only as a sideline."

But Mr. DeBoer somehow couldn't see it that way. He made a quiet survey among his tire customers and invested heavily in gasoline selling equipment. And he still does not believe them. Good reason why. Even before the tourist season got under way this year, the company was making an average of nearly $1000 a month profit out of its year-old gasoline business.

"We felt quite certain that we were going to make money in the gasoline business," explains Mr. DeBoer, "for the reason that we made a survey and gathered certain facts before we decided to purchase the new site and expand into super-service.

"We believe that if more facts were used by those who sell gasoline, in determining actually whether or not they are making a profit and if not, wherein they are failing, there would be considerably less complaint by the smaller operators about the nonprofit of gasoline sales. We know that we are making good money in our gasoline department, because our accounting system proves it beyond any doubt."

Some of the facts which Mr. DeBoer meant were rather unusual in their source but vitally practical. When the firm first considered taking over the new site, it secured a 30-day option on it. On the company's books were approximately 2000 names of men and women who had been buying tires and tire service from the company.

Mr. DeBoer and his six associates took this list and went over it carefully, name by name. Each member of the firm selected from the list all of the people who were his friends or acquaintances. He automatically took it upon himself either to see each of these persons he selected, or to telephone them.

Getting in touch with a man, this is about what the member of the firm said: "Mr. Franks, we have an option on that nice site on the corner across from our tire store. It is a wonderful place for a drive-in gasoline business. If we take the place, we intend to move our tire business over there, make it larger and better, and add other services to make the new place a regular

Jack DeBoer's one-stop service station in Colorado Springs where gasoline sales average more than 1000 *gallons a day, and reached* 1200 *gallons a day in June. This station supplies all the day-to-day needs of motor cars*

super-service station. We are making a survey of our regular customers to see what they think of the idea before we close the deal. What we would like to know is, can we count on getting all or a part of your gasoline and oil business if we take over the new site?"

The man making the solicitation had a supply of cards in his pocket. He wrote the customer's name and address on each of these cards and made notations to cover the customer's reply. If the man promised to buy all his gasoline from the firm, that was noted. If he said that he was more or less obligated to So-and-So but would give the company at least a part of his business, mention was made of that; and if he said that he was so tied up otherwise that he could not promise the firm any of his gasoline and oil business, mention was also made of that.

Mr. DeBoer knows that the average consumption of gasoline in Colorado per car per year is about 510 gallons, and he knows further that the average around Colorado Springs is higher than for the state. Accordingly, by going over these cards and taking the statements of regular tire customers and weighing them, he was able to calculate rather accurately about what gasoline sales he could expect to make. Incidentally, he found these facts and statements highly valuable in securing financial backing in purchasing the new place.

The same general plan employed in securing the promise of business from regular tire customers is used by the firm in extending its list of gasoline purchasers.

Mr. DeBoer and his six associates get together periodically and make a list of gasoline prospects. Among all of them there are a lot of men who are friends or at least acquaintances of one or more of the owners, but who are not buying gasoline from the company.

Each man lists all the men of this class that he can remember. Then they take various other prospect lists and scan them to decide which of the seven owners is the most logical to visit each prospect. Thus they divide all the prospects among themselves and each sets out to make a personal canvass of his list. He gets into his car, goes out and talks with some of the men, asking them to buy gasoline and oils from the company. Some he finds are more logically reached by telephone, and making this contact, he asks them the same thing. In this manner, plus regular newspaper advertising, the company was able to build up its list of gasoline customers to the present business volume.

"But going out and asking men to buy from us brings them primarily for a trial purchase," Mr. DeBoer points out. "Unless we treat them a little better than they expect to be treated and give them a little more and better service than they anticipate, they likely will not come back again. Accordingly, we recognize the vital importance of the men on the pumps."

The company considers this contact so important, in fact, that two of the three men who dispense gasoline are stockholders in the corporation. These two men not only are of a caliber capable of owning a part of the business, but they likewise draw salaries of around $150 a month each. The third man is a young chap who is a helper for the other two and is in training for a regular contact job "out front."

The high caliber of men used by this company to contact gasoline customers and serve them accounts in large measure for the ability of the firm to dispense on an average more than 1000 gallons of gasoline a day from three pumps manned by three persons. These three men likewise handle all service and oil sales.

They have thus far sold as high as 3300 gallons of gasoline out of these three pumps in a single day.

The three men work as a "team." If there is no car in the driveway and a customer comes in, one man dispenses the gasoline, another wipes the windshield and the third puts water in the radiator. If another customer drives in during this time, the man nearest finished with his job (exclusive of the one who is dispensing the gasoline) goes to the service of the second customer.

If a third car comes in before the first one is gone, the third employe goes to the third car, leaving the man who is handling the pump for the first car to finish the radiator and the windshield. Thus all three men cooperate to service a single car quickly, or they separate as new customers come, according to the rush of business.

By this procedure the company is able to render service that is more rapid than the average. Mr. DeBoer declares that regardless of whether or not a motorist has anything to do, he likes to be served quickly and will not wait long without it.

Perfection Stove Manufactures Oil Burner

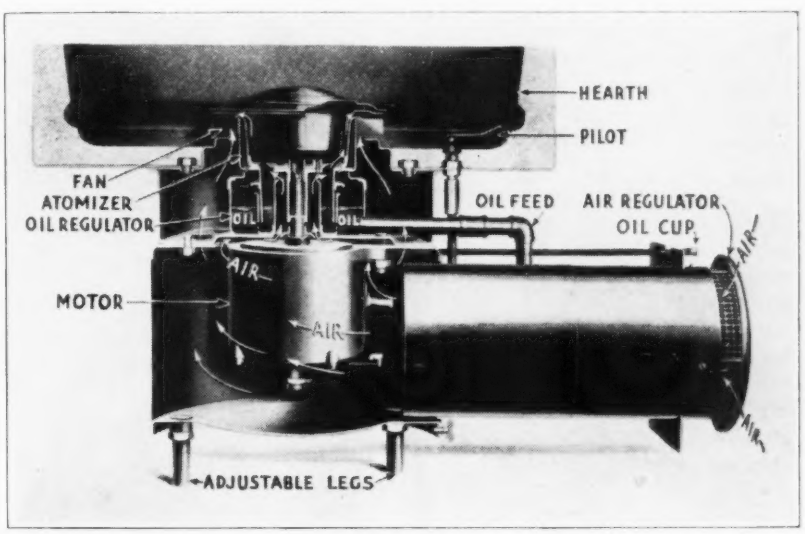
CLEVELAND, Aug. 14.—A new oil burner of a rotary type using a vertical shaft motor and installed in the ashpit of the furnace is being manufactured by the Perfection Stove Co. here.

The burner is built to use oil not higher than 32 gravity, flash point of 150 to 190, and fire point of 175 to 225. The maximum fire point may be changed to 210. Pour point is not to be higher than zero. These specifications were given out by the manufacturer.

Fuel is fed by gravity from the storage tanks. Draft is taken in through a tube, passing around the motor, and blown across the hearth. Gas is used for ignition, the pilot light being designed so that expansion is not necessary.

The burner is fully automatic. Safety controls have been built in to make the burner stop or recycle in case of an ignition failure, momentary current control or combustion failure.

W. H. Arnold, formerly assistant sales manager of the Pittsburgh Valve, Foundry & Construction Co., has been appointed general sales manager, succeeding C. A. Anderson, Jr., who became president March 1.



Cross section view of New Perfection model C oil burner manufactured by the Perfection Stove Co., Cleveland

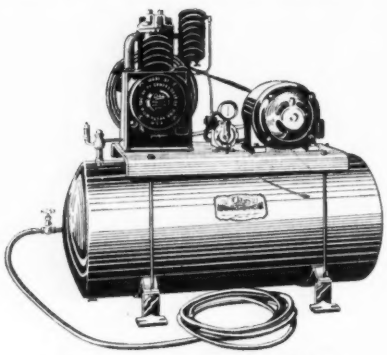
YOU NEED MORE AIR

The new services you are rendering—engine cleaning, paint spraying, hydraulic lifts and gasoline pump operating require additional air.

Here's an Air Compressor designed to do it all, and do your tire inflating, too. A 2 H.P. unit with 60 gallon tank at the price of a ¾ H.P. two-stage unit . . It's a great buy, the result of 20 years continuous specializing in air compressors.

The Oro T 58
GOOD as GOLD

ALL-PURPOSE UNIT



Ask your jobber to sell you for **$215**

If your jobber does not carry, ask us.

THE AU-TO COMPRESSOR CO.

197 Mulberry St. Wilmington, Ohio
Export office, 126 Liberty St., New York City

EQUIPMENT
you no longer need

can be turned into cash by advertising it in the classified section.

There is always a buyer and seller for everything. That's why it pays to use classified advertising. When you have any outgrown or unnecessary equipment just tell the 16,000 oil men that read *National Petroleum News* each week.

Try it—the results will surprise you.

The Cost is Small

"Position Wanted" advertisements—5c a word, minimum cost $1.00. All other classified advertising—10c a word, minimum $3.00. If set in special type or with border—$4.00 a column inch. Forms close Friday preceding date of issue. All classified advertisements payable in advance.

National Petroleum News
1213 West 3rd St., Cleveland, Ohio

Organizes Retail Sales Division

DENVER

THE disappearance of names of companies whose retail stations were acquired months ago by the Midwest Refining Co. and the establishment of that company's name on all its stations is a recent event in Rocky Mountain marketing territory. Among chains of stations that were purchased were the Aero Oil Co., Cheyenne, Wyo., and the Hughes Oil Co., in Montana. These stations now carry the Midwest slogan, "Mountain Made for Mountain Trade."

Under the general direction of Vice-president H. G. Naylor, who has for many years directed the marketing and traffic activities of the company, a retail sales division recently was organized with Frank L. Cochran at its head. Mr. Cochran formerly was in the marketing end of the Standard Oil Co. of Indiana, of which the Midwest is a subsidiary. Born in Atchison, Kans., in 1883, he went to work for the Standard as a station clerk in Atchison in 1902. He was office boy in St. Joseph, Mo., for a brief time, going from there to Detroit.

After spending seven years with the Standard in Detroit he left the company and stayed away for five years, returning in 1915 as lubricating oil salesman. As sales manager at Detroit, assistant manager at Saginaw and division manager at Minneapolis he labored in the Standard vineyard until November, 1928, when he joined the Midwest as general manager of sales, Denver headquarters.

The Midwest retail sales department is in three divisions. The Colorado division is headed by H. B. Carpenter. He was educated as a civil engineer and was one time in charge of engineering and construction in the city parks department of St. Louis. He was for seven years in the asphalt sales department of the Standard of Indiana; left to become an aviator during the war; returned to the company and six years ago was transferred to Denver as manager of the asphalt and road oil department of the Midwest. He was made manager of the Colorado division in March.

H. G. Naylor, vice-president and director, Midwest Refining Co.

Frank L. Cochran, manager of retail sales, Midwest Refining Co.

Leslie A. Miller, of Cheyenne, heads the Wyoming division. Long time a resident of Wyoming, state representative several terms, first collector of internal revenue for the Wyoming district, Mr. Miller knows his state intimately.

With George H. Goohs, of Cheyenne, he organized the Aero Oil Co. in 1921 and built a company that was outstanding. With stations along all the principal trunk highways of the state, the Aero company's retail methods and persistent use of highway signs made it a big name to the thousands of tourists who visit the state each year. Some two years ago the company was bought by the Midwest and both Mr. Miller and Mr. Goohs continued in the service, as manager and sales manager respectively.

Charles S. Dines manages the Montana division. He came into the Midwest organization when the company acquired the Hughes Oil Co., whose headquarters were at Glendive. General offices now are in Billings. He was one time president of the Tulsa Oil Co. Assisting him as sales manager of the division is Col. Burke H. Sinclair, formerly director of industrial relations of the Midwest.

"WILPEP" NATURAL GASOLINE

Will improve Your MOTOR FUEL

Quick start and get away
Snappy in operation
Powerful—Clean
Improves "anti-knock" qualities

TODAY, more than ever before, the practical value of "Natural Gasoline" is being recognized.

"WILPEP" NATURAL GASOLINE, used in correct proportion, adds many necessary qualities to Motor Fuels that are obtainable in no other way. Some of the largest blenders in United States are now using "WILPEP".

Thirty-five Plants, with a potential yearly output of many millions of gallons, are under our control—shipments are made in tank cars under direct supervision of our own Traffic Department, assuring you REAL SERVICE.

"WILPEP" NATURAL GASOLINE is always available on wire or phone order.

All grades are well within specifications of N. G. A. of A.

Attractive propositions offered on contracts and quantity shipments.

Return coupon today—no obligation

WILLOCK OIL CORPORATION

First National Bank Bldg.
Pittsburgh, Pa.

Tear off here

WILLOCK OIL CORP.
1st Nat'l Bank Bldg.,
Pittsburgh, Pa.

Date.....

Please { ship / quote } .....cars (grades checked) your "WILPEP" NATURAL GASOLINE

A ☐ AA ☐ B ☐ BB ☐ C ☐

Shipment { prompt ☐ / future ☐ } date.....

Please quote contract price.....cars per month, shipment from (date.....) to, (date.....)

Shipping Points: ....

Signed: ..... P.O..... State.....

Code Propagation and Enforcement Committees Picked by A.P.I.

CLEVELAND, Aug. 15

MOST of the state and regional committees that are charged by the American Petroleum Institute with the propagation and enforcement of Group II rules of the Code of Marketing Practices, have been announced by the institute in New York. More names are to be added to some of the committees and a few whole committees are yet to be appointed.

The institute this week issued a booklet containing the code with the interpretations by the A.P.I. national committee on interpretation of the code. The booklet also contains blanks for the expression of approval of code and the method of enforcement as expressed in the resolutions adopted by A.P.I. directors in New York July 25.

The list of committees and members, corrected to Aug. 9, follows:

NATIONAL COMMITTEE ON INTERPRETATION OF THE CODE

Chairman:
H. T. Klein, The Texas Co., New York.
E. S. Hall, Standard Oil Co. of N. J., New York.
E. L. Shea, Tide Water Associated Oil Co., New York.
Roy B. Jones, Panhandle Prod. & Ref. Co., Wichita Falls.
W. R. Boyd, Jr., American Petroleum Institute, New York.

REGIONAL AND SUBCOMMITTEES

PACIFIC COAST REGION:

(Washington, Oregon, California, Nevada and Arizona)

Regional Committee

Chairman:
K. R. Kingsbury, Standard Oil Co. of Calif., San Francisco.
G. Legh-Jones, Shell Co. of California, San Francisco.
Wm. F. Humphrey, Associated Oil Co., San Francisco.
J. A. Talbot, Richfield Oil Co., Los Angeles.
Lionel T. Barneson, General Petroleum Corp., Los Angeles.
Jacques Vinmont, Texas Co. of California, Los Angeles.
W. L. Stewart, Union Oil Co. of Calif., Los Angeles.

Sub-Committees

No Sub-Committees yet reported.

ROCKY MOUNTAIN REGION:

(Montana, Idaho, Wyoming, Utah, Colorado and New Mexico)

Regional Committee

Chairman:
E. T. Wilson, Continental Oil Co., Denver.
T. A. Dines, Midwest Refining Co., Denver.
F. C. Cramer, Denver Powerine Co., Denver.

Sub-Committees

No. Sub-Committees yet reported.

SOUTHWESTERN REGION:

(Texas, Arkansas and Louisiana).

Regional Committee

Chairman:
Roy B. Jones, Panhandle Prod. & Ref. Co., Wichita Falls.
E. T. Moore, Simms Oil Co., Dallas.
E. R. Brown, Magnolia Petroleum Co., Dallas.
F. M. Smith, Oriental Oil Co., Dallas.
C. A. Middleton, Kent-Middleton Refining Co., Corsicana.
W. S. Farish, Humble Oil & Refining Co., Houston.
E. J. Marston, Texas Pacific Coal and Oil Co., Fort Worth.
T. J. Gay, Gay Oil Co., Little Rock.
Thos. C. Anderson, Liberty Oil Co., New Orleans.
M. J. Grogan, Louisiana Oil & Refining Co., Shreveport.

Sub-Committees

TEXAS

Chairman:
Edward T. Moore, Simms Oil Co., Dallas.
E. P. Angus, Magnolia Petroleum Co., Dallas.
B. W. Fitzgerald, Pierce Oil Corp., Dallas.
F. R. Schneider, Simms Oil Co., Dallas.
W. Hal Noble, The Texas Co., Dallas.
Frank M. Smith, Oriental Oil Co., Dallas.
C. A. Middleton, Middleton Refining Co., Corsicana.
Floyd Casey, Home Oil Co., Waco.

Fort Worth District

E. J. Marston, Texas Pacific Coal & Oil Co., Fort Worth.
J. C. Stephens, Magnolia Petroleum Co., Fort Worth.
H. J. Cobble, Cities Service Oil Co., Fort Worth.
P. R. Plummer, Plum-Jeff Oil Co., Fort Worth.
D. E. Little, Litwood Oil Co., Fort Worth.
J. C. McCoy, Transcontinental Oil Co., Fort Worth.
W. M. Harrison, Star Oil & Refining Co., Fort Worth.
A. R. Maulsby, White Eagle Oil & Ref. Co., Fort Worth.
J. C. Gaither, Gaither Oil Co., Fort Worth.

Houston District

O. H. Carlisle, Gulf Refining Co., Houston.
M. J. Munroe, Humble Oil & Refining Co., Houston.
W. C. Gaylor, Gaylor Oil Co., Houston.
S. J. Hilton, Ranger Oil Co., Houston.
J. R. Herr, Sinclair Refining Co., Houston.
J. S. Leach, The Texas Co., Houston.
J. H. Miles, Pioneer Oil Co., Houston.
J. W. Henworth, Crescent Oil Co., Houston.
L. H. Flynn, Texas Petroleum Marketers Assn., Houston.
J. B. Russ, Texas Petroleum Marketers Assn., Houston.
J. C. Harris, Magnolia Petroleum Co., Houston.
Link Calhoun, Bay Oil Co., Houston.
R. Lindeman, Coastal Petroleum Co., Houston.

El Paso District

V. H. Anderson, Savage Oil Co., El Paso.
W. C. Pope, Rio Grande Oil Co., El Paso.
J. H. Fasel, Magnolia Petroleum Co., El Paso.
S. E. Stretton, Pasotex Petroleum Co., El Paso.
C. M. McNutt, El Paso.

San Antonio District

C. F. Watson, Grayburg Oil Co., San Antonio.
W. W. Rew, Magnolia Petroleum Co., San Antonio.
M. A. Kahn, Kahn Oil Co., San Antonio.
Grover C. Shaw, Texas Petroleum Prod. Co., San Antonio.
Alfred Mueller, Cloverleaf Oil Co., San Antonio.
O. F. Davenport, Laurel Petroleum Co., San Antonio.
Chester Slimp, Pioneer Oil Co., San Antonio.
A. H. Hoffman, Hoffman Petroleum Co., San Antonio.
R. R. Russell, Russell Oil Co., San Antonio.

Amarillo District

A. M. Hughes, Phillips Petroleum Co., Amarillo.
John Pringee, MacMillan Oil Corp., Amarillo.
W. O. Gatton, Magnolia Petroleum Co., Amarillo.
Clifford N. Dillon, Plains Lubricating Co., Amarillo.

West Texas District

F. W. Burford, Burford Refining Co., Pecos.
Geo. Moore, Cosden & Co., Fort Worth.
E. F. Griswold, Pecos Valley Refining Co., Pyote.
Eugene Constantin, Tonkawa Petroleum Corp., Pyote.
W. D. Richardson, Richardson Refining Co., Big Springs.

Laredo District

O. W. Killiam, Misko Refineries, Inc., Laredo.
S. P. Coblentz, Motor Fuel Products Co., Laredo.

Corpus Christi District

J. W. Johnston, Federal Petroleum Co., Corpus Christi.
W. A. McCracken, Paramount Oil & Gas Co., Corpus Christi.
C. E. Cox, Independent Oil Co., Corpus Christi.
A. C. Svatapolsky, Sunflower Oil Co., Corpus Christi.

Wichita Falls District

P. F. Gwynne, Iowa Prod. & Refg. Co., Iowa Park.
W. L. Scott, American Refining Co., Wichita Falls.
G. W. Reed, Panhandle Refining Co., Wichita Falls.
T. H. Lawson, Continental Oil Co., Wichita Falls.
D. Gray, Dale Oil & Refining Co., Electra.
C. F. Kolp, Waggoner Refining Co., Electra.

Beaumont District

J. V. Evans, Evans-Carrol Co., Beaumont.
Thos. Lombardo, Oleander Oil Co., Beaumont.
F. M. Schmitt, Fabra Auto Supply Co., Beaumont.
W. M. Averhill, Pure Oil Co., Beaumont.

ARKANSAS

Chairman:
T. J. Gay, Gay Oil Co., Little Rock.
C. V. Millican, Transcontinental Co., Little Rock.
Roy E. Stueber, 555 Tire & Service Co., Little Rock.
T. M. Martin, Lion Oil & Refining Co., El Dorado.
Fred Norton, McMillan Petroleum Co., El Dorado.
Henry C. Armstrong, Quality Oil Co., Fort Smith.
J. H. Kruger, Magnolia Petroleum Co., Little Rock.
J. A. Welch, Gay Oil Co., Little Rock.
Jim Fussell, The Service Co., Forrest City.
R. L. Aycock, Root Refineries, El Dorado.

LOUISIANA

Chairman:
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(Oklahoma and Kansas)

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John L. Gray, Shaffer Oil & Refining Co., Tulsa.
Waite Phillips, Independent Oil & Gas Co., Tulsa.
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L. R. Crawford, Producers & Refiners Corp., Independence.
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R. W. McDowell, Mid-Continent Pet Corp., Tulsa.
Oscar L. Cordell, Independent Oil & Gas Co., Tulsa.

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J. A. Motter, Kansas Oil Men's Assn., Wichita.

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Sub-Committees

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Paul W. Deer, Deer & Son, Crawfordsville.
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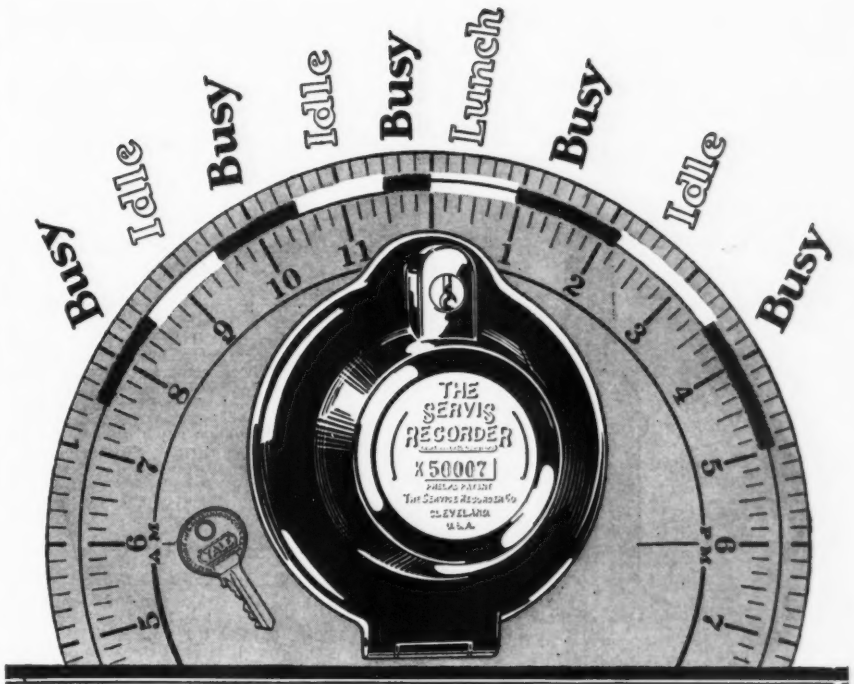

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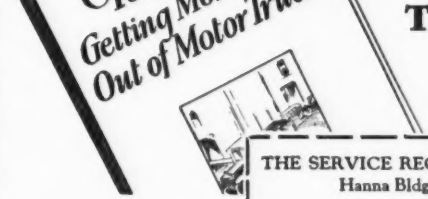

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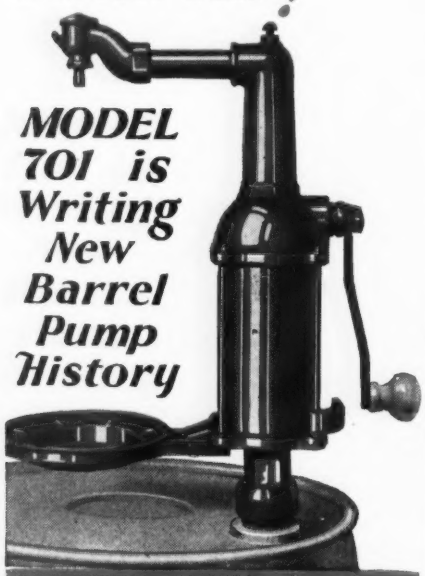

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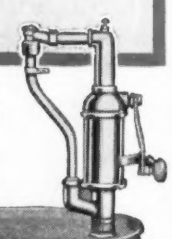
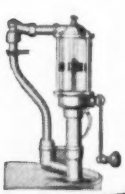


MODEL 506. Non-visible pump with automatic self-closing return drain arm.
MODEL 505. Non-visible pump with open return drain pan. Screen in return drain pan with dust-proof cover attached.

(All models can be supplied with meter or to take a meter)



MODEL 80. Visible pump, with automatic self-closing return drain arm tube. Nozzle encloses arm and eliminates dust, rain, etc., from entering barrel.
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Stockton Heth, Nicholas Oil Corp., Omaha.
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C. M. Swanson, Sinclair Refining Co., Des Moines.
Tom Meece, Phillips Pet. Co., Des Moines.
T. W. Morris, Texas Oil Co., Des Moines.
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J. C. Becker, Big Four Oil Co., Sheldon.
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Z. C. Redish, Shell Petroleum Corp., Moline, Ill.

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(Maine, New Hampshire, Rhode Island, New York, Pennsylvania, Maryland, Virginia, Tennessee, Mississippi, Alabama, Florida, Vermont, Massachusetts, Connecticut, New Jersey, Delaware, West Virginia, Kentucky, North Carolina, South Carolina, Georgia, and the District of Columbia)

Regional Committee

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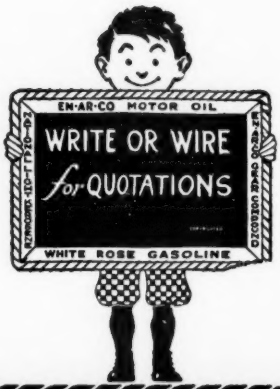
W. C. Teagle, Standard Oil Co. of New Jersey, New York.
E. W. Sinclair, Sinclair Consolidated Oil Corp.,



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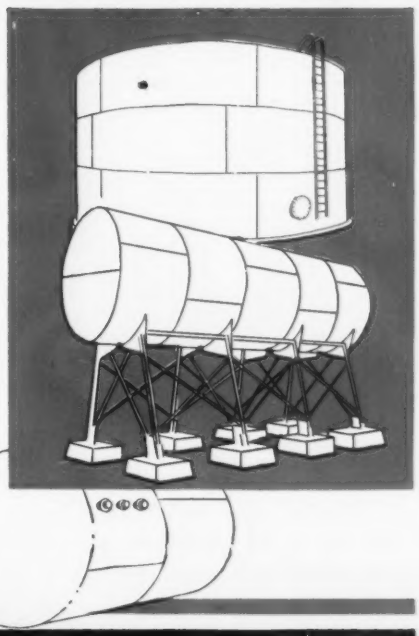

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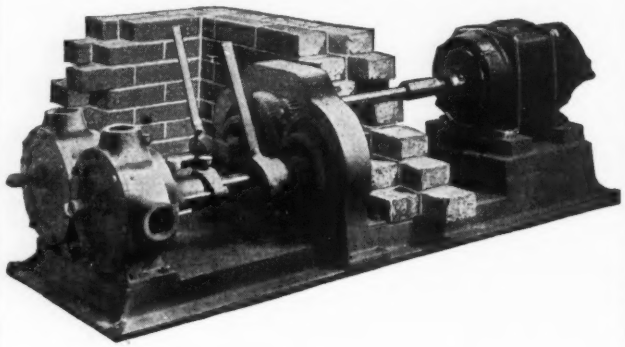

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C. Malcolm, The Pure Oil Co., Marcus Hook.
W. F. Carroll, Old Time Petroleum Co., Wilmington.
Geo. W. Phillips, Pittsburgh Ind. Oil Co., Wilmington.

WEST VIRGINIA
Chairman:
Crittendon Ford, Standard Oil Co. of New Jersey, Charleston.
(Members Sub-Committee not yet reported)

KENTUCKY
(No Sub-Committee yet reported)

NORTH CAROLINA
Chairman:
L. F. Manning, Gulf Refining Co., Raleigh.
J. C. Moore, Dixie Oil Co., Raleigh.
Chas. S. Wallace, Morehead City.
J. B. Hughes, Wilmington Oil Co., Wilmington.
W. R. Holt, Holt Oil Co., Smithfield.
C. K. Boren, Central Oil Co., Greensboro.
C. M. Byers, Standard Oil Co., Charlotte.
J. R. Flanigan, Statesville Oil Co., Statesville.
R. P. Simmons, Koon Oil Co., Asheville.
J. N. Koonts, Sinclair Refining Co., Atlanta, Ga.

SOUTH CAROLINA
Chairman:
C. R. Dillard, Sinclair Refining Co., Atlanta, Ga.
(Members Sub-Committee not yet reported)

GEORGIA
Chairman:
J. S. Jones, The Texas Co., Atlanta.
Wiley Moore, Wofford Oil Co., Atlanta.
R. E. Hodgson, Standard Oil Co. of Kentucky, Atlanta.
Guy Wilby, Gulf Refining Co., Atlanta.
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Note these complete specifications of the

AMERICAN "PRESTO-SERVUS" METER SYSTEM

which insures satisfaction

AIR RELEASE VALVE. Effectively separates all vapor from the liquid, so that only the liquid is recorded by the meter. This keeps the METER ACCURATE and within tolerance at al times. *An exclusive American feature.*

DOUBLE-DIALED METER with 10" faces makes it easy for motorist to check his purchase from either side. *We use the best constructed and most accurate meter to be had.* It is the most expensive on the market because it is worth it—not to be confused with cheaper meters.

PUMPING UNIT is of the rotary type . . . large capacity . . . slow speed, only 420 r.p.m. This prevents excess churning and vaporization of gasoline within the unit.

MOTOR is standard 1/3 h.p., vapor proof, and totally enclosed.

A quiet CHAIN DRIVE is used, geared 4 to 1.

STRAINER with large capacity screen is located below pumping unit; separates water and dirt from gasoline before it enters either pumping unit or meter.

SIGHT GLASS of large capacity with spinner, effectually displays gasoline being discharged.

CHECK VALVE. A check valve is connected to the strainer casting.

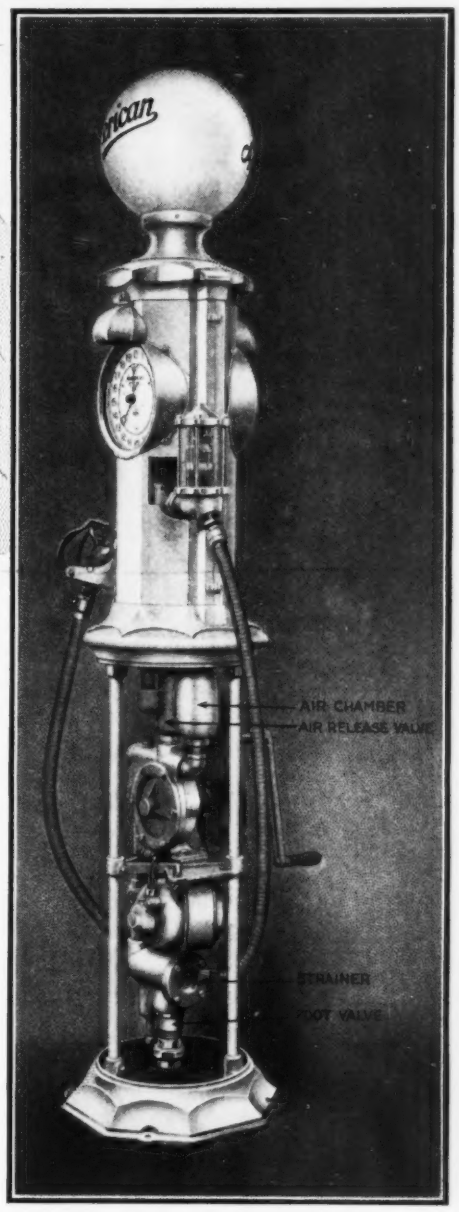
MONEL METAL SCREEN. Placed in the union below the check valve is an 1/8" mesh monel metal screen to prevent large particles from getting under the check valve.

AIR CHAMBER. The air chamber attached to the pumping unit is of ample size to cushion the shock when the hose nozzle is closed and the flow of gasoline is suddenly stopped.

ELECTRIC WIRING. All electric wiring is arranged in a solid conduit with vapor-proof boxes—entire outfit is VAPORPROOF.

LIGHT FIXTURES. The light fixtures consist of receptacles for illuminating the advertising globe at the top and the two dials of the meter.

Beautiful multi-color Bulletin explains details —write today for copy, without obligation.



The AMERICAN OIL PUMP & TANK CO.

1713 DALTON ST. CINCINNATI, O.

West Coast Gasoline Territory Grows At Expense of Eastern Group

Bureau of Mines Report for First Half of Year Shows California Gasoline Stocks Slightly Lower While East Coast, Mid-Continent and Appalachian Stocks Gain Appreciably

By E. L. Barringer
N. P. N. STAFF WRITER

CLEVELAND, Aug. 16

CALIFORNIA gasoline stocks in the first half of 1929 were lower by 3.29 per cent than in the first six months of 1928 while in the same period stocks increased 11.92 per cent on the East Coast, 75.90 per cent in Oklahoma, Kansas and Missouri, 34.33 per cent in the Appalachian district, and 40.75 per cent in Indiana, Illinois and Kentucky.

These figures, from the current Bureau of Mines statistical report for May and for the first half of 1929, reflect California's position in seeking an outlet for gasoline in Atlantic coast and adjoining states this spring.

Gasoline moved through the Panama Canal from California to eastern ports increased 41.50 per cent in the first half of 1929 over the corresponding period in 1928. The movement in June, however, had subsided as the increase over May was 6.67 per cent.

In crude production by states California jumped into first place in June as a result of the lifting of restriction bans recently. June production was 820,900 barrels daily average. Texas was a close second with 82,600 barrels daily average. Oklahoma was third with a production of 689,600 barrels daily.

High Lights in June Oil Statistics

CRUDE oil production is at new daily average peak.

Crude oil stocks are at new high.

Gasoline stocks lower than in May.

Gasoline shipments decline over May.

Kerosene stocks daily average output up, shipments down.

Lubricating oil stocks down, daily average production and shipments up.

Paraffin wax stocks up, production and shipments down.

Gas and fuel oil stocks and output up, and shipments down.

For the country as a whole production in the first half of 1929 was 12.06 per cent greater than for the corresponding period in 1928 while in these months California's production was up 25.69 per cent.

Stocks of crude for the first six months were 20.18 per cent larger in California for 1929 over 1928. Stocks east of California in this period were 2.71 per cent lower in 1929.

For the country as a whole a new high daily average of crude production was set in June of 2,780,000 barrels. On account of the short month June production reached 83,403,000 barrels compared to 84,415,000 barrels in May. Stocks gained 5,155,000 barrels in June to a total of 515,416,000 barrels. Stocks east of California declined 453,000 barrels in June while California stocks gained almost 6,000,000 barrels.

Total stocks east of California, at refineries, pipe lines, tank farms, and including foreign crude, was 379,089,000 barrels June 30 compared to 379,542,000 barrels on May 31.

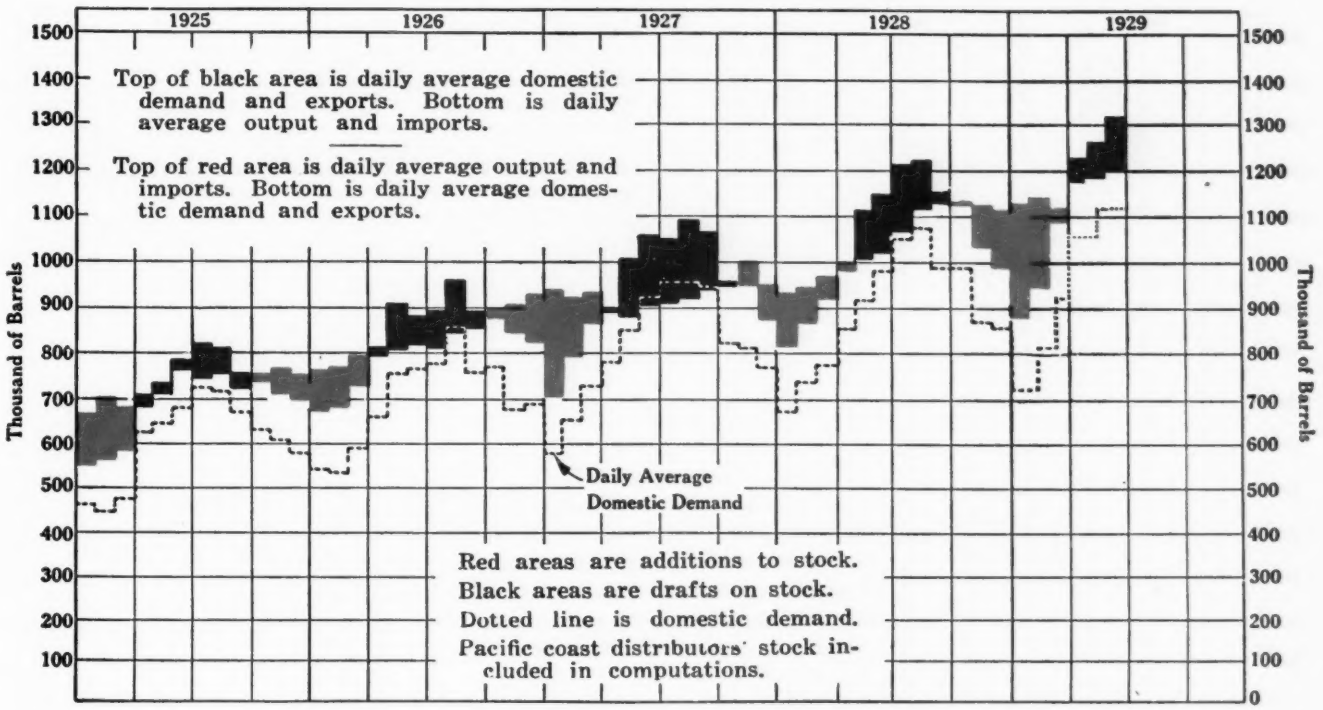
Gasoline stocks were lowered by 7.14 per cent in June over May, but

Petroleum Supply and Demand — Barrels

	June 1929	May 1929	April 1929	March 1929	Feb. 1929	June 1928	Jan.-June 1929	Jan.-June 1928
Domestic Crude Production: Light	75,390,000	76,009,000	71,799,000	73,713,000	67,743,000	64,940,000	439,466,000	388,592,000
Heavy	8,013,000	8,406,000	8,311,000	8,802,000	7,950,000	7,586,000	48,649,000	46,972,000
Imports of crude oil	6,591,000	7,552,000	7,828,000	6,790,000	7,016,000	6,553,000	43,852,000	38,006,000
Imports of refined oil	2,426,000	2,732,000	2,634,000	1,489,000	908,000	712,000	11,073,000	6,909,000
Natural gasoline produced	4,250,000	4,343,000	4,264,000	4,324,000	3,736,000	3,355,000	24,900,000	20,493,000
Benzol used in blending	257,000	267,000	255,000	264,000	233,000	231,000	1,526,000	1,379,000
Total new supply of all oils	96,927,000	99,309,000	95,091,000	95,382,000	87,586,000	83,377,000	569,466,000	502,351,000
Total stocks end of preceding month	653,529,000	649,803,000	643,530,000	634,063,000	625,199,000	616,382,000	613,483,000	589,607,000
Total supply of all oils	750,456,000	749,112,000	738,621,000	729,445,000	712,785,000	699,759,000	1,182,949,000	1,091,958,000
Exports of crude oil	2,615,000	1,932,000	1,726,000	1,572,000	1,678,000	1,879,000	11,495,000	8,680,000
Exports of refined oil	12,383,000	10,928,000	10,357,000	10,801,000	9,506,000	12,284,000	65,689,000	69,670,000
Domestic demand, crude and refined	76,955,000	82,723,000	76,735,000	73,542,000	67,538,000	69,990,000	447,262,000	398,002,000
Total demand	91,953,000	95,583,000	88,818,000	85,915,000	78,722,000	84,153,000	524,446,000	476,352,000
Total stocks of all oils end of month	659,895,000	653,529,000	649,803,000	643,530,000	634,063,000	615,606,000	659,895,000	615,606,000
Days' supply	215.3	211.1	218.4	23.2	224.5	219.5	227.8	235.2
Increase in stocks of all oils	4,974,000	3,726,000	6,273,000	9,467,000	8,864,000	*776,000	45,020,000	25,000,000
Daily average new supply	3,231,000	3,204,000	3,170,000	3,077,000	3,128,000	2,779,000	3,146,000	2,760,000
Daily average demand	3,065,000	3,083,000	2,961,000	2,771,000	2,812,000	2,805,000	2,897,000	2,617,000
Daily average excess of supply	365,000	204,000	263,000	438,000	316,000	204,000	372,000	326,000
Crude stocks east of Calif.: Light	333,102,000	332,011,000	331,301,000	327,634,000	325,766,000	319,322,000	333,102,000	319,322,000
Heavy	45,987,000	47,531,000	49,405,000	52,025,000	51,173,000	51,890,000	45,987,000	51,890,000
In California: Light	32,667,000	29,038,000	26,500,000	24,067,000	21,810,000	19,197,000	32,667,000	19,197,000
Heavy	103,660,000	101,681,000	100,332,000	100,504,000	99,284,000	94,234,000	103,660,000	94,234,000
Total stocks of crude	515,416,000	510,261,000	507,538,000	504,230,000	498,033,000	484,643,000	515,416,000	484,643,000
Total stocks of refined	143,123,000	141,878,000	141,099,000	138,305,000	135,209,000	130,315,000	143,123,000	130,315,000
Total stocks of natural gasoline	1,356,000	1,390,000	1,166,000	995,000	821,000	648,000	1,356,000	648,000

*Decrease

Gasoline Production and Consumption


1925
1926
1927
1928
1929
Top of black area is daily average domestic demand and exports. Bottom is daily average output and imports.
Top of red area is daily average output and imports. Bottom is daily average domestic demand and exports.
Thousand of Barrels
Daily Average Domestic Demand
Red areas are additions to stock.
Black areas are drafts on stock.
Dotted line is domestic demand.
Pacific coast distributors' stock included in computations.

June domestic production	1,187,000 Bbls. daily av.	June domestic shipments	1,123,000 Bbls. daily av.
June imports	24,000 Bbls. daily av.	June exports	194,000 Bbls. daily av.
Total new supply	1,211,000 Bbls. daily av.	Total indicated demand	1,317,000 Bbls. daily av.

Stocks, June 30, 1929 ..... 41,461,000 Bbls.
Decrease in stocks in June ..... 3,187,000 Bbls.
Stocks June 30, 1928 ..... 34,862,000 Bbls.

were 18.93 per cent greater in June 1929 than June 1928. Daily average shipments to domestic users in June declined 7.70 per cent over May while domestic daily output was 1.44 per cent greater.

Daily average output of kerosene was 5.96 per cent higher in June than May. There was a drop of 18.08 per cent in daily average shipments to domestic users while exports gained 26.43 per cent in June. Stocks increased in June by 7.83 per cent, but were 1.01 per cent less than June 1928.

Lubricating oil stocks dropped 4.22 per cent in June over May. Daily average domestic production was up 0.68 per cent while daily average shipments to domestic users was up 11.14 per cent.

Stocks of paraffin wax on June 30, 1929 were 105.20 per cent higher than on June 30, 1928. June stocks increased 5.37 per cent over May. Production in June fell off 1.99 per cent while domestic shipment was down 30.72 per cent. Export movement for the first half of the year was 35.64 per cent less than in 1928.

Gain in gas and fuel oil daily output was 0.03 per cent in June and daily average shipments to domestic users was down 2.64 per cent. Stocks were 4.76 per cent higher than in May and 3.46 per cent higher than June 1928.

The refinery data in the June report were compiled from 343 refineries with an aggregate daily recorded crude capacity of 3,399,000 barrels. These refineries operated at 83 per cent of capacity in June. The May report was compiled from 342 refineries operating at 81 per cent of their capacity.

Crude Oil

Another new high level of crude oil production on a daily average basis was set in June of 2,780,000 barrels. On account of the short month the June total, 83,403,000 barrels, did not reach the May total of 84,415,000 barrels.

California's total production in June climbed by 45,000 barrels making the daily average 820,900 barrels. This increase places California at the head of the oil producing states. Texas was a close second with a daily average production of 820,600 barrels, an increase of 16,500 barrels daily average. Oklahoma was third with a daily average production of 689,600 barrels, a decline of 11,800 barrels daily from May. Kansas production jumped 4,000 barrels daily in June to an average of 126,400 barrels.

Exports of crude oil rose to 87,200 barrels daily average. Imports declined to 219,700 barrels daily. Following is the tabulation of imports, daily average figures:

Crude Oil Imports — Barrels

Origin	June Daily Av.	May Daily Av.	Jan.-June 1929 Total	Jan.-June 1928 Total	Per cent change 1929 over 1928
Mexico	54,100	41,300	5,917,000	8,346,000	—29.10
Venezuela	139,600	165,800	29,862,000	21,949,000	+36.05
Colombia	21,200	27,600	6,362,000	6,364,000	— 0.03
Other Countries	4,800	8,900	1,711,000	1,347,000	+27.02
Total	219,700	243,600	43,852,000	38,006,000	+15.38

Crude Oil Exports — Barrels

Destination	June Daily Av.	May Daily Av.	Jan.-June 1929 Total	Jan.-June 1928 Total	Per cent change 1929 over 1928
Canada	74,900	55,800	9,366,000	6,799,000	+37.76
Other Countries	12,100	6,500	2,122,000	1,874,000	+13.23
Shipments	200	.....	7,000	6,000	+16.67
Total	87,200	62,300	11,495,000	8,679,000	+32.45

Crude Oil Production by States and Fields—Barrels

	June 1929 Daily Avg.	May 1929 Daily Avg.	June 1928 Daily Avg.	Jan.-June 1929 Total	Jan.-June 1928 Total	1929 Change Over 1928
California	820,900	775,900	638,800	141,985,000	112,961,000	+25.69
Gulf Coast Louisiana	18,600	18,300	25,000	3,550,000	2,916,000	+21.74
Gulf Coast Texas	125,600	130,500	106,700	22,366,000	19,160,000	+16.73
Total Gulf Coast	144,200	148,800	131,700	25,916,000	22,076,000	+17.39
Total Coastal	965,100	924,700	770,500	167,901,000	135,037,000	+24.34
Colorado	7,200	7,100	7,500	1,227,000	1,374,000	—10.70
Montana	8,700	8,800	10,000	1,657,000	2,033,000	—18.49
New Mexico	2,900	3,100	2,200	494,000	432,000	+14.35
Wyoming	53,400	50,600	61,200	9,225,000	10,545,000	—12.52
Total Rocky Mountain	72,200	69,600	80,900	12,603,000	14,384,000	—12.38
Arkansas	68,100	71,900	102,900	13,317,000	16,314,000	—18.37
Kansas	126,400	122,400	108,600	19,814,000	20,249,000	— 2.15
Oklahoma	689,600	701,400	634,800	127,104,000	117,530,000	+ 8.15
North Louisiana	34,400	34,400	40,700	6,252,000	7,891,000	—20.77
Inland Texas	695,000	673,600	565,800	119,703,000	104,087,000	+15.00
Total Southwestern	1,613,500	1,603,700	1,452,800	286,190,000	266,071,000	+ 7.56
Illinois	17,200	17,700	18,300	3,082,000	3,253,000	— 5.26
Indiana	2,600	2,700	2,900	498,000	497,000	+ 0.20
Ohio	19,100	18,700	20,800	3,273,000	3,595,000	— 8.96
Kentucky	18,200	20,500	18,700	3,420,000	3,554,000	— 3.77
Pennsylvania	31,800	32,800	27,600	5,483,000	4,846,000	+13.14
West Virginia	15,100	15,800	15,700	2,743,000	2,880,000	— 4.76
New York	9,400	9,300	7,600	1,610,000	1,201,000	+34.05
Michigan	15,900	7,500	1,700	1,301,000	224,000	+480.80
Tennessee	.....	100	100	11,000	22,000	—50.00
Total Eastern	129,300	125,100	113,400	21,421,000	20,072,000	+ 6.72
GRAND TOTAL U. S.	2,780,000	2,723,100	2,417,600	488,115,000	435,564,000	+12.06

Origin	June Bbls.	May Bbls.
Mexico	54,100	41,300
Venezuela	139,600	165,800
Colombia	21,200	27,600
Other countries	4,800	8,900
Total	219,700	243,600

Crude exports to Canada rose 19,100 barrels daily average, and those to other countries rose 5,600 barrels to 12,100 barrels.

Production by important fields showed an increase at Santa Fe Springs, Seminole and West Texas. Long Beach field declined 6,000 barrels daily average.

The increase in Santa Fe Springs was 55,000 barrels daily average to 237,000 barrels daily. Seminole's increase amounted to 2,000 barrels daily to 409,000 barrels. West Texas was up 2,000 barrels to 378,000 barrels.

Shipments of crude through the Panama Canal from California to Eastern ports were increased materially in June. Total shipment was 170,000 barrels compared with a movement of 95,000 barrels in May. The total movement for the first six months of 1929, however, was only 661,000 barrels as against 1,649,000 barrels for the same period in 1928.

Production increased in the California, Mid-Continent, and Michigan fields in June. California's daily average was 820,900 barrels, an increase of 45,000 barrels. The Mid-Continent was up 9,800 barrels daily to a total of 1,613,000 barrels. Michigan's production more than doubled, from 7,500 barrels daily in May to 15,900 barrels in June; an increase of 112 per cent.

The Appalachian field fell off 4,300 barrels daily to a total of 88,800 barrels for June. The Illinois-southwestern Indiana field was off 700 barrels daily. In the Gulf coast field there was a decline of 4,600 barrels daily, while the Rocky Mountain field was up 2,600 barrels. The Lima-Indiana field was up 800 barrels.

The total stocks of crude oil for the country at the end of June were

Stocks of Crude Oil

Domestic Unless Otherwise Specified. Amounts In Thousands of Barrels

AT REFINERIES

	June 1929	May 1929	June 1928
East Coast:			
Domestic	8,202	9,367	8,409
Foreign	5,382	6,484	5,862
Appalachian	2,591	2,645	2,242
Indiana, Illinois, etc.	2,945	2,974	2,957
Oklahoma, Kansas, etc.	6,216	6,034	5,662
Texas Inland	2,578	2,464	1,927
Texas Gulf Coast:			
Domestic	9,802	9,492	8,469
Foreign	533	344	102
Ark. and Inland La.	1,402	1,470	881
Louisiana Gulf Coast:			
Domestic	3,975	3,391	4,149
Foreign	1,649	1,818	970
Rocky Mountain	2,028	2,075	1,488
U. S. East of Calif.	47,303	48,558	43,118

AT TANK FARMS, IN PIPE LINES AND ELSEWHERE THAN REFINERIES

(Reported by Field of Origin)			
Appalachian	4,652	4,711	6,064
Kentucky	778	866	1,087
Lima-Indiana	770	854	1,267
Ill., S. W. Indiana	10,868	11,128	12,200
Okla., Kans., Tex., except coastal	246,402	245,021	236,725
N. La.-Ark.	23,148	23,278	26,543
Gulf Coast	20,643	20,381	17,028
Rocky Mountain	24,311	24,462	27,038
East of Calif., pipe line and tank farm stocks	331,572	330,701	327,952
Foreign Crude:			
Atlantic ports	60	110	91
Gulf ports	154	173	51
Total refinery, pipe line and tank farm stocks east of Calif.	379,089	379,542	371,212
California:			
20° and lighter	32,667	29,038	19,197
Heavier than 20°	103,660	101,681	94,234
GRAND TOTAL	515,416	510,261	484,643

CLASSIFICATION BY GRAVITY

(East of California)

24° and lighter	333,102	332,011	319,322
Heavier than 24°	45,987	47,531	51,890

PRODUCERS' STOCKS

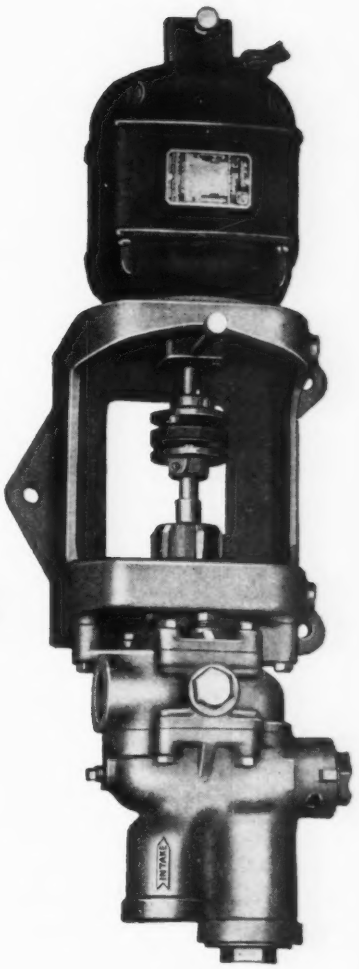
(Approximate)

East of Calif	7,500	7,450	.....
California	573	1,950	.....

Runs to Stills — Barrels — Daily Average

Districts	CRUDE OIL June 1929	CRUDE OIL May 1929	UNFINISHED OIL June 1929	UNFINISHED OIL May 1929	NATURAL GASOLINE June 1929	NATURAL GASOLINE May 1929	TOTAL INPUT Daily Average June, 1929	TOTAL INPUT Daily Average May, 1929
Texas Gulf Coast: Domestic	402,300	400,032	20,367	25,387	17,667	19,452	440,334	444,871
Foreign	15,633	15,259	.....	.....	.....	.....	15,633	15,259
Louisiana Gulf Coast: Domestic	117,300	123,161	1,233	4,355	14,433	16,290	132,966	143,806
Foreign	17,600	22,323	.....	.....	.....	.....	17,600	22,323
Total Gulf Coast	552,833	560,775	21,600	29,742	32,100	35,742	606,533	626,259
East Coast: Domestic	300,200	282,870	38,833	34,774	2,833	7,452	341,866	325,096
Foreign	209,800	194,806	.....	.....	.....	.....	209,800	194,806
Total East Coast	510,000	477,676	38,833	34,774	2,833	7,452	551,666	519,902
California	682,100	640,581	12,167	8,903	50,100	44,806	744,367	694,290
Total Tide Water	1,744,933	1,679,032	72,600	73,419	85,033	88,000	1,902,566	1,840,451
Appalachian	102,733	98,065	3,600	4,225	1,533	1,000	107,866	103,290
Ind., Ill., Ky	315,467	297,613	21,333	21,935	6,333	5,677	343,133	325,225
Total East Central	418,200	395,678	24,933	26,160	7,866	6,677	450,999	428,515
Oklahoma, Kans., Mo	330,133	322,774	13,500	11,935	11,667	10,129	355,300	344,838
Inland Texas	174,933	181,839	4,533	2,419	5,200	5,097	184,666	189,355
No. La. and Ark	71,067	70,968	11,300	5,161	4,167	4,065	86,534	80,194
Total Southwestern	576,133	575,581	29,333	19,515	21,034	19,291	626,500	614,387
Rocky Mountain	74,067	72,935	19,200	23,000	4,333	4,354	97,600	100,289
Total Inland	1,068,400	1,044,194	73,466	68,675	33,233	30,322	1,175,099	1,143,191
TOTAL UNITED STATES	2,813,333	2,723,226	146,066	142,094	118,266	118,322	3,077,065	2,983,642
Change June over May	+3.31	.....	+2.79	.....	—0.05	.....	+3.13	.....
Runs, June 1928	2,522,700	.....	135,300	.....	91,000	.....	2,749,000	.....
Change Runs June 1929, over June 1928	+11.52	.....	+7.96	.....	+29.96	.....	+11.93	.....

FERRO
NON-PULSATING
Rotary Pumps



MODEL
No. 1200-1

Meter Dispensing and One of its Problems

In considering a Meter Dispensing System, the choice of the Pumping Unit is one of the great problems to be answered. The Engineer, upon whose shoulders rests the responsibility of choosing the Ideal Pumping Unit, has many things to consider.

Compactness of Design
Accessibility for Cleaning, Oiling and necessary Repairs
The Pumping Principle involved
Power Losses due to Friction
Probable Wearing Life
Design of Relief Valve
Method of Motor Drive
and
Many other questions that involve sound engineering principles

The Ferro Non-Pulsating Rotary Pump, Model 1200-1, is answering these questions every day for the engineering departments of some of the largest manufacturers of meter dispensing equipment.

Let us send you one of our 1200-1 Pumping Units which you can place under any type of test you may desire and we know that the Ferro Pump will answer all of your problems.

Write us today for illustrated folders describing Ferro Rotary Pumps for Meter and Visible gasoline dispensing equipment and for remote control installations.

The Ferro Machine & Foundry Co
CLEVELAND O
U S A

Natural Gasoline and Motor Blends — Barrels

Districts	Daily Avg. Production June (net)	Daily Avg. Production May (net)	Stocks End of June	Stocks End of May	Motor Fuel Blends Made in June	Motor Fuel Blends Made in May	Stocks Blends End of June	Stocks Blends End of May	Districts
Appalachian	5,100	6,144	94,786	78,167	5,119	5,429	6,500	5,952	Appalachian
Ill., Ky., etc.	714	922	11,286	9,905	24	71	286	286	Ill., Ky., etc.
Seminole, etc.	24,524	23,272	105,214	110,738	15,190	24,190	1,905	2,595	Seminole, etc.
Osage County	5,079	5,146	273,405	309,500	2,809	214	48	71	Osage County
Rest of State	15,952	16,590	224,762	245,142	70,690	74,571	12,024	10,071	Rest of State
Total Oklahoma	45,555	45,008	603,381	665,380	88,689	98,975	13,977	12,737	Total Oklahoma
Kansas	2,063	2,304	39,071	43,571	786	810	143	190	Kansas
Panhandle	10,159	10,292	329,833	298,548	11,857	11,857	905	976	Panhandle
North Texas	3,095	3,226	36,167	33,119	4,309	3,905	952	714	North Texas
West Central	9,683	9,908	158,405	165,143	5,452	4,167	1,643	1,595	West Central
Rest of State	2,857	2,765	9,000	16,619	1,905	2,047	500	333	Rest of State
Total Texas	25,794	26,191	533,405	513,429	23,523	21,976	4,000	3,618	Total Texas
Louisiana	3,809	3,763	18,667	23,429	1,238	667	309	286	Louisiana
Arkansas	2,063	2,074	7,143	6,762	14,238	15,643	881	595	Arkansas
Rocky Mountain	3,254	3,303	13,524	15,595	.....	.....	.....	.....	Rocky Mountain
Long Beach	15,238	14,977	.....	.....	.....	.....	.....	.....	Long Beach
Ventura Ave.	5,397	4,992	.....	.....	.....	.....	.....	.....	Ventura Ave.
Seal Beach	2,778	2,842	.....	.....	.....	.....	.....	.....	Seal Beach
Huntington Beach	2,698	2,611	.....	.....	.....	.....	.....	.....	Huntington Beach
Santa Fe Springs	15,317	12,750	.....	.....	.....	.....	.....	.....	Santa Fe Springs
Rest of California	11,984	12,212	.....	.....	.....	.....	.....	.....	Rest of California
Total California	53,412	50,384	35,000	34,214	.....	.....	.....	.....	Total California
TOTAL U. S.	141,764	140,093	1,356,263	1,390,452	133,617	143,571	26,096	23,664	TOTAL U. S.

515,416,000 barrels compared with a total of 510,261,000 barrels at the end of May, an increase of 5,155,000 barrels in June. Stocks east of California in June declined slightly, being 379,089,000 barrels as against 379,542,000 barrels at the end of May. California stocks increased almost 6,000,000 barrels in June; being 130,719,000 barrels at the end of May and 136,327,000 barrels at the end of June. These figures do not include producer's stocks which amounted to 8,073,000 barrels in June and 9,009,000 barrels in May.

Crude stocks east of California at refineries and in transit thereto were 47,303,000 barrels at the end of June. At the end of May stocks were 48,558,000 barrels. On June 30, 1928, stocks were 43,118,000 barrels. Total net stocks east of California in pipe line and tank farms was 331,572,000 barrels on June 30. Foreign crude at the Atlantic and Gulf coasts June 30 was 214,000 barrels.

Total crude east of California at refineries, in pipe lines, and at tank farms, including foreign crude was 379,089,000 barrels on June 30, and 379,542,000 barrels on May 31. On June 30, 1928 stocks were 371,212,000 barrels.

For the first six months of 1929 total production increased 12.06 per cent over the corresponding period of 1928. The 1929 production was 488,115,000 barrels, and that for 1928 435,564,000 barrels, an increase of 52,551,000 barrels.

California showed the greatest increase during this period; production for the 1929 period was 141,985,000 barrels and for 1928 112,961,000 barrels, an increase of 25.69 per cent. Gulf coast field had the next biggest increase amounting to 17.39 per cent; 1929 production for the six months being 25,916,000 barrels. The in-

Gasoline Supply and Demand — Barrels

	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January, 1928	27,981,000	562,000	3,713,000	20,778,000	37,368,000
February	26,856,000	372,000	3,341,000	21,402,000	39,853,000
March	29,276,000	259,000	4,016,000	24,294,000	41,078,000
April	29,317,000	472,000	4,111,000	25,567,000	41,189,000
May	30,825,000	368,000	5,812,000	28,346,000	38,224,000
June	30,703,000	212,000	4,808,000	29,469,000	34,862,000
Total Six Months	174,958,000	2,245,000	25,801,000	149,856,000	34,862,000
July	32,974,000	267,000	5,167,000	32,542,000	30,394,000
August	34,101,000	479,000	4,563,000	33,336,000	27,075,000
September	33,669,000	193,000	4,837,000	29,722,000	26,378,000
October	34,403,000	388,000	4,049,000	30,680,000	26,440,000
November	33,171,000	304,000	4,678,000	26,052,000	29,185,000
December	33,907,000	420,000	3,802,000	26,644,000	33,066,000
1928 Total	377,183,000	4,296,000	52,897,000	328,832,000	33,066,000
January, 1929	34,335,000	499,000	4,650,000	22,602,000	40,648,000
February	31,264,000	406,000	3,838,000	22,776,000	45,704,000
March	34,467,000	327,000	4,798,000	27,495,000	48,205,000
April	34,636,000	822,000	4,629,000	32,019,000	47,015,000
May	36,270,000	729,000	5,249,000	34,117,000	44,648,000
June	35,606,000	732,000	5,832,000	33,693,000	41,461,000
Total Six Months	206,578,000	3,515,000	28,996,000	172,702,000	41,461,000
Change This Year Over Like Period Last Year	+31,620,000	+1,270,000	+3,195,000	+22,846,000	+6,599,000
Per Cent	+18.07	+56.57	+12.38	+15.25	+18.93

Gasoline Situation by Districts — Barrels

Districts	June 1929 Daily Avg. Output	May 1929 Daily Avg. Output	June Change %	June Daily Avg. Shipments	May Daily Avg. Shipments	June Change %	Stocks June 1929	Stocks May 1929	Stocks June 1928	Districts
Gulf Coast Texas	180,067	189,935	— 5.20	214,867	314,258	—31.63	4,532,000	5,576,000	3,883,000	Gulf Coast Texas
Gulf Coast Louis.	62,400	62,903	— 0.80	82,133	71,193	+15.37	1,469,000	2,061,000	1,180,000	Gulf Coast Louis.
Total Gulf	242,467	252,838	— 4.10	297,000	385,451	—22.95	6,001,000	7,637,000	5,063,000	Total Gulf
East Coast	157,833	154,742	+ 1.99	187,533	164,645	+13.90	6,327,000	7,218,000	5,653,000	East Coast
California	244,533	235,000	+ 4.06	242,500	240,935	+ 0.65	11,900,000	11,839,000	12,241,000	California
Total Coastal	644,833	642,580	+ 0.35	727,033	791,031	— 8.09	24,228,000	26,694,000	22,957,000	Total Coastal
Appalachian	46,233	45,742	+ 1.07	52,100	50,645	+ 2.87	1,522,000	1,698,000	1,133,000	Appalachian
Ind., Ill., Ky., etc.	183,933	176,258	+ 4.35	201,667	200,258	+ 0.70	6,586,000	7,118,000	4,679,000	Ind., Ill., Ky., etc.
Total East Cent.	230,166	222,000	+ 3.68	253,767	250,903	+ 2.84	8,108,000	8,816,000	5,812,000	Total East Cent.
Okla., Kans., Mo.	175,533	168,677	+ 4.06	181,433	176,419	+ 2.78	5,205,000	5,382,000	2,959,000	Okla., Kans., Mo.
Inland Texas	65,967	65,000	+ 1.49	62,067	65,935	— 5.87	1,106,000	989,000	684,000	Inland Texas
No. La. and Ark.	23,500	24,097	— 2.48	23,067	22,484	+ 2.59	320,000	307,000	68,000	No. La. and Ark.
Total Southwest.	265,000	257,774	+ 2.80	266,567	264,838	+ 0.65	6,631,000	6,678,000	3,711,000	Total Southwest.
Rocky Mountain	46,867	47,645	— 1.63	45,733	52,968	—13.66	2,494,000	2,460,000	1,913,000	Rocky Mountain
Total Inland	542,033	527,419	+ 2.77	566,067	568,709	— 0.46	17,233,000	17,954,000	11,436,000	Total Inland
TOTAL U. S.	1,186,866	1,169,999	+ 1.44	1,293,100	1,359,740	— 4.90	41,461,000	44,648,000	34,393,000	TOTAL U. S.
Imports	24,400	23,516	+ 3.76	.....	.....	.....	.....	.....	.....	Imports
Exports	.....	.....	.....	194,400	169,322	+14.81	.....	.....	.....	Exports
Average new supply	1,201,266	1,193,515	+ 0.65	.....	.....	.....	.....	.....	.....	Avg. new supply
Avg. ship. to dom. distrib. or users	.....	.....	.....	1,098,700	1,190,418	— 7.70	.....	.....	.....	Avg. ship. to dom. distributors or users

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Kerosene Situation by Districts — Barrels

Districts	June 1929 Daily Avg. Output	May 1929 Daily Avg. Output	June Change %	June Daily Avg. Shipments	May Daily Avg. Shipments	June Change %	Stocks June 1929	Stocks May 1929	Stocks June 1928	Districts
Gulf Coast Texas	23,733	26,903	—11.78	21,067	22,903	— 8.02	1,408,000	1,328,000	1,430,000	Gulf Coast Texas
Gulf Coast Louis.	13,100	11,677	+12.19	10,433	8,806	+18.48	695,000	615,000	1,528,000	Gulf Coast Louis.
Total Gulf	36,833	38,580	— 4.53	31,500	31,709	— 0.66	2,103,000	1,943,000	2,958,000	Total Gulf
East Coast	25,500	22,548	+13.09	20,933	21,000	— 0.32	1,333,000	1,196,000	1,526,000	East Coast
California	28,900	27,258	+ 6.02	26,600	26,161	+ 1.68	2,833,000	2,764,000	1,676,000	California
Total Coastal	91,233	88,386	+ 3.22	79,033	78,870	+ 0.21	6,269,000	5,903,000	6,160,000	Total Coastal
Appalachian	10,367	9,806	+ 5.72	10,133	9,484	+ 6.84	279,000	272,000	294,000	Appalachian
Ind., Ill., Ky., etc.	16,467	14,774	+11.46	12,733	14,419	—11.69	748,000	639,000	936,000	Ind., Ill., Ky., etc.
Total East Cent.	26,834	24,580	+ 9.17	22,866	23,903	— 4.34	1,027,000	911,000	1,230,000	Total East Cent.
Okla., Kans., Mo.	30,800	28,709	+ 7.28	26,700	31,677	—15.71	689,000	566,000	603,000	Okla., Kans., Mo.
Inland Texas	8,633	8,903	— 3.03	8,800	8,065	+ 9.11	134,000	139,000	65,000	Inland Texas
No. La. and Ark.	1,600	1,194	+34.00	1,700	1,452	+17.08	17,000	20,000	25,000	No. La. and Ark.
Total Southwest	41,033	38,806	+ 5.74	37,200	41,194	— 9.70	840,000	725,000	693,000	Total Southwest
Rocky Mountain	5,267	6,353	—17.09	4,967	6,258	—20.63	212,000	203,000	287,000	Rocky Mountain
Total Inland	73,134	68,963	+ 6.05	65,033	71,355	— 8.85	2,079,000	1,839,000	2,210,000	Total Inland
TOTAL U. S.	164,367	155,125	+ 5.96	144,066	150,225	— 4.10	8,348,000	7,742,000	8,370,000	TOTAL U. S.
Imports	500	194	+157.73	.....	.....	.....	.....	.....	.....	Imports
Exports	.....	.....	.....	59,667	47,194	+26.43	.....	.....	.....	Exports
Average new supply	164,867	158,319	+ 4.14	.....	.....	.....	.....	.....	.....	Avg. new supply
Avg. ship. to dom. distrib. or users	.....	.....	.....	84,399	103,031	—18.08	.....	.....	.....	Avg. ship. to dom. distributors or users

crease in the Mid-Continent field was 7.56 per cent, 286,190,000 barrels in the first six months of 1929 and 266,071,000 barrels for the 1928 period.

The Appalachian field output was up 3.54 per cent; production in 1929 was 15,827,000 barrels and for the corresponding 1928 months 15,285,000 barrels. Michigan had the most spectacular jump of 480.80 per cent; 1928 production being 224,000 barrels and in the first six months of 1929 1,301,000 barrels.

The principal oil producing states had increased production for the first six months of 1929 over the same 1928 period except Kansas. Kansas production declined 2.15 per cent to a total of 19,814,000 barrels for the period. Oklahoma was up 8.15 per cent to 127,104,000 barrels. Texas production was 142,069,000 barrels, an increase of 15.27 per cent. Pennsylvania was up 13.14 per cent to 5,483,000 barrels. California's increase as noted above was 25.69 per cent.

Decreases in production were recorded in Arkansas, Louisiana and Wyoming. Arkansas production fell to 13,317,000 barrels, a decline of 18.38 per cent. In Louisiana production was 9,802,000 barrels, a drop of 9.30 per cent, and Wyoming output was down 12.52 per cent to 9,225,000 barrels.

Total crude oil stocks for this period increased .6.35 per cent. Stocks for six months in 1928 at the end of June were 484,653,000 barrels and the 1929 period 515,416,000 barrels.

Crude imports for this six months period increased to 43,852,000 barrels compared with 38,006,000 barrels for the 1928 period, an advance of 15.38 per cent. Imports from Venezuela were up 36.05 per cent to 29,862,000 barrels in 1929. Mexico sent 29.11 per cent less oil in 1929 than in 1928, or a total of 5,917,000 barrels this year. Colombia imports were almost stationary, declining only .04 per cent.

Kerosene Supply and Demand — Barrels

	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January, 1928	5,058,000	46,000	2,350,000	2,799,000	7,670,000
February	4,749,000	11,000	1,551,000	3,266,000	7,613,000
March	4,715,000	6,000	1,852,000	2,722,000	7,760,000
April	5,033,000	20,000	1,912,000	3,168,000	7,733,000
May	5,243,000	1,000	2,057,000	3,383,000	7,537,000
June	4,849,000	24,000	1,655,000	2,323,000	8,432,000
Total Six Months	29,647,000	108,000	11,377,000	17,661,000	8,432,000
July	4,994,000	19,000	1,834,000	3,141,000	8,470,000
August	5,389,000	2,000	1,678,000	3,296,000	8,887,000
September	5,060,000	.....	2,090,000	3,264,000	8,593,000
October	5,190,000	55,000	1,755,000	3,469,000	8,614,000
November	4,908,000	.....	2,091,000	2,545,000	8,886,000
December	4,968,000	20,000	1,241,000	3,632,000	9,001,000
1928 Total	60,156,000	204,000	22,066,000	38,008,000	9,001,000
January	4,700,000	38,000	1,918,000	2,956,000	8,865,000
February	4,435,000	20,000	1,591,000	3,519,000	8,210,000
March	4,515,000	5,000	1,899,000	2,976,000	7,855,000
April	4,434,000	21,000	1,657,000	3,156,000	7,497,000
May	4,902,000	6,000	1,463,000	3,200,000	7,742,000
June	4,928,000	15,000	1,790,000	2,547,000	8,348,000
Total Six Months	27,814,000	105,000	10,318,000	18,354,000	8,348,000
Change This Year Over Like Period Last Year	—1,833,000	—3,000	—1,059,000	+703,000	—84,000
Per Cent	—6.18	—2.78	—9.31	+3.98	—1.01

Gas and Fuel Oil Situation by Districts — Barrels

Districts	June 1929 Daily Avg. Output	May 1929 Daily Avg. Output	June Change %	June Daily Avg. Shipments	May Daily Avg. Shipments	June Change %	Stocks June 1929	Stocks May 1929	Stocks June 1928	Districts
Gulf Coast Texas	170,833	169,161	+ 0.99	153,367	159,064	— 3.58	9,373,000	8,849,000	8,513,000	Gulf Coast Texas
Gulf Coast Louis.	40,333	54,645	—26.19	45,067	44,935	+ 0.29	5,008,000	5,150,000	4,652,000	Gulf Coast Louis.
Total Gulf	211,166	223,806	— 5.65	198,434	203,999	— 2.73	13,381,000	13,999,000	13,165,000	Total Gulf
East Coast	267,533	260,419	+ 2.73	235,900	249,903	— 5.60	7,006,000	6,057,000	9,729,000	East Coast
California	389,167	368,806	+ 5.52	.....	.....	.....	.....	.....	.....	California
Total Coastal	867,867	853,031	+ 1.74	*434,334	*453,902	— 4.31	21,387,000	20,056,000	22,894,000	Total Coastal
Appalachian	21,133	20,129	+ 4.99	21,100	22,258	— 5.20	964,000	963,000	1,029,000	Appalachian
Ind., Ill., Ky., etc.	97,500	95,710	+ 1.87	91,367	88,484	+ 3.26	2,794,000	2,610,000	2,495,000	Ind., Ill., Ky., etc.
Okla., Kans., Mo.	106,700	110,709	— 3.62	100,100	89,742	+11.54	6,164,000	5,966,000	5,672,000	Okla., Kans., Mo.
Inland Texas	91,167	97,968	— 6.94	93,267	88,516	+ 5.38	3,359,000	3,422,000	1,961,000	Inland Texas
N. La. and Ark.	40,233	43,935	— 8.43	39,967	43,774	— 8.70	1,436,000	1,428,000	773,000	N. La. and Ark.
Rocky Mountain	20,000	22,710	—13.55	18,767	18,323	+ 2.42	1,228,000	1,191,000	1,191,000	Rocky Mountain
Total Inland	376,733	391,161	— 3.68	364,568	351,097	+ 3.84	15,945,000	15,580,000	13,121,000	Total Inland
TOTAL U. S.	1,244,600	1,244,192	+ 0.03	*798,902	*804,999	— 0.76	37,332,000	35,636,000	36,015,000	TOTAL U. S.
Imports	55,333	63,968	—13.50	.....	.....	.....	.....	.....	.....	Imports
Exports	.....	.....	.....	112,500	100,000	+12.50	.....	.....	.....	Exports
Avg. new supply	1,299,933	1,308,160	— 0.63	.....	.....	.....	.....	.....	.....	Avg. New supply
Avg. ship. to dom. distributors or users	.....	.....	.....	*686,402	*704,999	— 2.64	.....	.....	.....	Avg. ship. to dom. distributors or users

*Exclusive of California.

Exports of crude for the first half of the year were 11,495,000 barrels as against 8,680,000 barrels for the same period in 1928, an increase of 32.43 per cent. Exports to Canada advanced 37.75 per cent to 9,366,000 barrels, while exports to other countries were up 13.23 per cent to 2,122,000 barrels.

The number of producing oil wells was 5,527 for the first six months of 1928 and 7,079 wells for the first six months of this year. This is an increase of 28.08 per cent.

While shipments of California crude oil through the Panama Canal increased by 78.94 per cent in June over that in May, the total shipments for the first six months of the year over the same 1928 period were 60 per cent less. These shipments in 1929, first six months, were 661,000 barrels and for the same period in 1928 1,649,000 barrels.

Runs to Stills

Total input to stills for the entire country was 3.13 per cent greater in June than in May, on a daily average basis. For June daily average was 3,077,065 barrels as compared to 2,983,642 barrels for May.

The total input for the country was 92,330,000 barrels for June. Crude runs were 77,109,000 barrels domestic and 7,291,000 barrels foreign, unfinished oil run 4,382,000 barrels and natural gasoline 3,548,000 barrels. On a daily average basis June runs of domestic crude were 3.19 per cent above May, foreign oil runs 4.74 per cent, and unfinished oil runs 2.81 per cent. Natural gasoline was unchanged over May.

California had the largest total input of 22,331,000 barrels for the month. Daily average for June was 744,367 barrels compared to 694,290 barrels for May, an increase of 7.21 per cent. Texas refineries ran 19,219,000 barrels in June, a daily average of 640,633 barrels. East coast refineries ran 9,006,000 barrels of domestic crude and 6,294,000 barrels of foreign crude, 1,165,000 barrels of unfinished oils, and 85,000 barrels of natural gasoline for a total input of 16,550,000 barrels.

Total runs on tide water—Texas and Louisiana Gulf coast, California and East coast—were 1,902,566 barrels for June an increase of 3.37 per cent over May.

East Central runs were 450,999 daily average for June or an increase of 5.24 per cent over May. Total southwestern runs were 626,500 barrels daily average, increase of 1.97 per cent. Total inland runs amounted to 1,175,099 barrels daily for June, an increase of 2.79 per cent over May.

Gasoline

Although gasoline stocks at the end of June were 7.14 per cent lower than at the end of May, June stocks were 18.93 per cent greater than at the end of June, 1928. Stocks in June, 1929, were 41,461,000 gallons.

Daily average shipments in June were 1,098,700 barrels to domestic distributors and users, a drop of 7.70 per cent over May, and 194,400 barrels for export. Daily average output was 1,186,866 barrels, and with 24,400 barrels imported, the average new supply for June was 1,201,266 barrels or 0.65 per cent over May. The daily average domestic output was 1.44 per cent greater in June than in May. Total domestic output for the month was 35,606,000 barrels.

June stocks as compared with May were lower in all districts except California, Inland Texas, and Rocky

Gas and Fuel Oil Supply and Demand — Barrels

	Production	Imports	Exports	Domestic Shipments	*Stocks End of Month
January, 1928	33,013,000	553,000	4,175,000	.....	30,665,000
February	31,897,000	666,000	3,420,000	.....	29,560,000
March	34,437,000	848,000	3,969,000	.....	29,104,000
April	33,870,000	1,176,000	4,211,000	.....	29,669,000
May	35,620,000	784,000	3,612,000	.....	32,887,000
June	35,765,000	468,000	4,238,000	.....	36,085,000
Total Six Months	204,602,000	4,495,000	23,625,000	.....	36,085,000
July	36,754,000	484,000	4,261,000	.....	36,410,000
August	37,390,000	515,000	3,420,000	.....	39,236,000
September	37,004,000	397,000	3,226,000	.....	39,900,000
October	36,941,000	320,000	3,356,000	.....	39,599,000
November	35,771,000	411,000	3,320,000	.....	37,878,000
December	37,293,000	646,000	3,254,000	.....	34,926,000
1928 Total	425,755,000	7,268,000	44,462,000	.....	34,926,000
January, 1929	36,838,000	335,000	3,699,000	.....	32,522,000
February	34,331,000	466,000	2,795,000	.....	30,118,000
March	37,456,000	1,146,000	2,600,000	.....	30,195,000
April	37,533,000	1,778,000	2,892,000	.....	33,404,000
May	38,570,000	1,983,000	3,100,000	.....	35,636,000
June	37,338,000	1,660,000	3,375,000	.....	37,332,000
Total Six Months	222,076,000	7,368,000	18,461,000	.....	37,332,000
Change This Year Over Like Period Last Year	+17,474,000	+2,873,000	—5,164,000	.....	+1,247,000
Per Cent	+8.54	+63.91	—21.86	.....	+3.46

*East of California only.

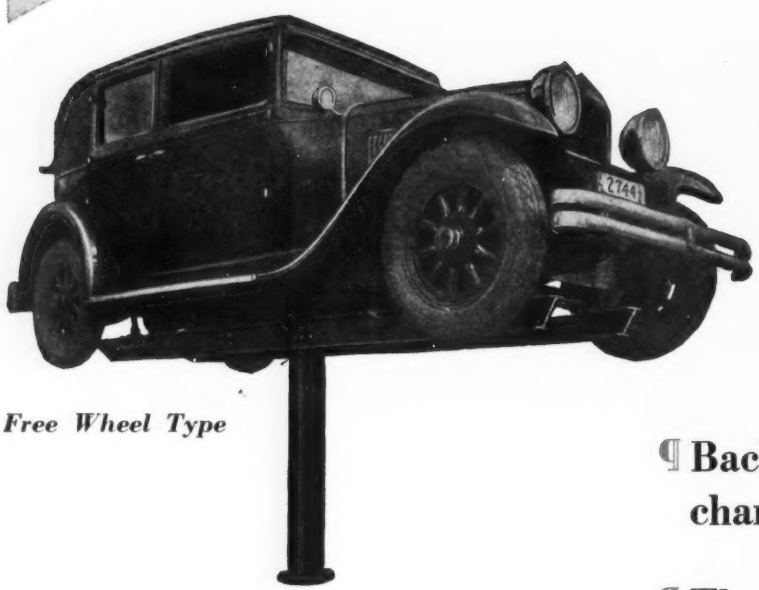
Lubricating Oil Supply and Demand — Barrels

	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January	2,654,000	.....	934,000	1,592,000	7,988,000
February	2,728,000	.....	841,000	1,543,000	8,332,000
March	2,878,000	.....	837,000	1,990,000	8,383,000
April	3,027,000	1,000	1,059,000	2,334,000	8,018,000
May	3,091,000	3,000	1,063,000	1,989,000	8,060,000
June	3,009,000	1,000	1,095,000	2,143,000	7,832,000
Total Six Months	17,387,000	5,000	5,829,000	11,591,000	7,832,000
July	2,828,000	1,000	1,063,000	1,931,000	7,667,000
August	2,891,000	1,000	813,000	2,035,000	7,711,000
September	2,833,000	1,000	808,000	1,995,000	7,742,000
October	2,979,000	1,000	769,000	2,123,000	7,830,000
November	2,748,000	1,000	895,000	1,763,000	7,921,000
December	2,993,000	3,000	878,000	1,699,000	8,340,000
1928 Total	34,659,000	13,000	11,055,000	23,137,000	8,340,000
January, 1929	2,945,000	1,000	1,116,000	1,521,000	8,649,000
February	2,503,000	4,000	871,000	1,751,000	8,534,000
March	2,943,000	2,000	1,045,000	1,581,000	8,853,000
April	2,899,000	3,000	786,000	2,628,000	8,341,000
May	3,005,000	4,000	844,000	2,322,000	8,370,000
June	2,928,000	6,000	989,000	2,299,000	8,016,000
Total Six Months	17,223,000	20,000	5,651,000	12,102,000	8,016,000
Change This Year Over Like Period Last Year	—164,000	+15,000	—178,000	+511,000	+184,000
Per Cent	—0.94	+300.00	—3.05	+4.41	+2.35

Paraffin Wax Supply and Demand — Pounds

	Production	Imports	Exports	Domestic Shipments	Stocks End of Month
January, 1928	55,378,000	1,117,000	39,712,000	17,696,000	149,725,000
February	49,158,000	1,337,000	38,036,000	25,705,000	136,479,000
March	50,170,000	1,767,000	40,147,000	28,747,000	119,522,000
April	57,548,000	2,996,000	34,122,000	36,235,000	109,709,000
May	51,072,000	1,855,000	34,826,000	24,171,000	103,639,000
June	50,792,000	1,715,000	33,594,000	30,563,000	91,989,000
Total Six Months	314,118,000	10,787,000	220,437,000	163,117,000	91,989,000
July	45,273,000	2,226,000	35,290,000	19,722,000	84,476,000
August	54,429,000	2,793,000	31,446,000	30,630,000	79,622,000
September	50,428,000	1,880,000	26,396,000	20,117,000	85,417,000
October	54,546,000	1,930,000	26,281,000	22,798,000	92,814,000
November	56,665,000	2,994,000	25,170,000	23,354,000	103,949,000
December	54,685,000	2,138,000	26,603,000	23,825,000	110,344,000
1928 Total	630,144,000	24,748,000	391,623,000	303,563,000	110,344,000
January, 1929	58,885,000	2,982,000	28,065,000	20,625,000	123,521,000
February	50,027,000	3,120,000	25,359,000	11,256,000	140,053,000
March	56,372,000	2,575,000	22,127,000	18,469,000	158,404,000
April	57,976,000	2,680,000	22,664,000	25,709,000	170,687,000
May	53,783,000	2,748,000	18,662,000	29,417,000	179,139,000
June	52,714,000	3,070,000	24,986,000	21,173,000	188,764,000
Total Six Months	329,757,000	17,175,000	141,863,000	126,649,000	188,764,000
Change This Year Over Like Period Last Year	+15,639,000	+6,388,000	—78,574,000	—36,468,000	+96,775,000
Per Cent	+4.98	+59.22	—35.64	—22.35	+105.20

GLOBE AUTO HOIST



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Lubricant Situation by Districts — Barrels

Districts	June 1929 Daily Avg. Output	May 1929 Daily Avg. Output	June Change %	June Daily Avg. Shipments	May Daily Avg. Shipments	June Change %	Stocks June 1929	Stocks May 1929	Stocks June 1928	Districts
Gulf Coast Texas	20,533	23,806	—13.75	27,700	24,161	+14.65	1,898,000	2,113,000	1,589,000	Gulf Coast Texas
Gulf Coast Louis.	2,767	2,907	— 4.82	3,367	2,065	+63.05	107,000	125,000	126,000	Gulf Coast Louis.
Total Gulf	23,300	25,903	—10.05	31,067	26,226	+18.46	2,005,000	2,238,000	1,715,000	Total Gulf
East Coast	29,633	27,774	+ 6.69	36,167	31,323	+15.46	2,523,000	2,719,000	2,676,000	East Coast
California	6,333	5,452	+16.16	3,333	5,452	—38.87	995,000	905,000	770,000	California
Total Coastal	59,266	59,129	+ 0.23	70,567	63,001	+12.01	5,523,000	5,862,000	5,161,000	Total Coastal
Appalachian	16,533	16,258	+ 1.69	15,600	10,806	+44.36	1,215,000	1,187,000	1,135,000	Appalachian
Ind., Ill., Ky., etc.	10,700	10,839	— 1.28	11,800	10,581	+11.52	626,000	659,000	790,000	Ind., Ill., Ky., etc.
Okla., Kans., Mo.	8,033	7,451	+ 7.81	8,333	8,064	+ 3.34	440,000	449,000	519,000	Okla., Kans., Mo.
Inland Texas	933	968	— 3.62	1,000	1,484	—32.61	45,000	47,000	83,000	Inland Texas
N. La. and Ark.	567	516	+ 9.88	533	548	— 2.74	6,000	5,000	5,000	N. La. and Ark.
Rocky Mountain	1,567	1,774	—11.67	1,567	1,516	+ 3.36	161,000	161,000	139,000	Rocky Mountain
Total Inland	38,333	37,806	+ 1.39	38,833	32,999	+17.68	2,493,000	2,508,000	2,671,000	Total Inland
TOTAL U. S.	97,599	96,935	+ 0.68	109,400	96,000	+13.96	8,016,000	8,370,000	7,832,000	TOTAL U. S.
Imports	200	129	+55.04	.....	.....	.....	.....	.....	.....	Imports
Exports	.....	.....	.....	32,967	27,226	+21.09	.....	.....	.....	Exports
Avg. new supply	97,799	97,064	+ 0.76	.....	.....	.....	.....	.....	.....	Avg. new supply
Avg. ship. to dom. distributors or users	.....	.....	.....	76,433	68,774	+11.14	.....	.....	.....	Avg. ship. to dom. distributors or users

Mountain. None of these increases was large.

California was the only state to have less gasoline in storage June 30, 1929, than on the same date in 1928. At the end of June there were 11,839,000 barrels of gasoline storage compared to 12,241,000 barrels at the end of June, 1928, a decline of 3.29 per cent.

Stocks in north Louisiana and Arkansas increased 370.58 per cent on June 30, 1929, over June 30, 1928. For the same dates Oklahoma, Kansas and Missouri stocks increased 75.90 per cent; Appalachian 34.33 per cent, East Coast 11.92 per cent, and Indiana, Illinois and Kentucky 40.75 per cent.

All districts showed an increase in stocks on June 30, 1929, compared to June 30, 1928. Increase at Gulf plants was 18.52 per cent; at Coastal plants, including Gulf, East Coast and California, 5.53 per cent; East Central 39.50 per cent; Southwest 78.19 per cent; and total increase for inland plants was 50.69 per cent.

Daily average output for June over May ranged from a decrease of 5.20 per cent in Gulf Coast Texas to an increase of 4.35 per cent in Indiana, Illinois and Kentucky. Output at California plants was increased 4.06 per cent; Oklahoma, Kansas and Missouri, 4.06 per cent; Appalachian 1.07 per cent; East Coast 1.99 per cent; and North Louisiana and Arkansas decreased 2.48 per cent.

Daily average shipments in June over May increased 13.90 per cent on East Coast, 15.37 per cent on Gulf Coast Louisiana, 0.65 per cent in California, and 2.78 per cent in Oklahoma, Kansas and Missouri. Decreases were 31.63 per cent in Gulf Coast Texas, and 13.66 per cent in Rocky Mountain.

Gasoline production for the first six months of 1929 increased over the same period for 1928 by 18.07 per cent. Imports were up 56.57 per cent and exports were up 12.38 per cent. Domestic shipments advanced 15.25 per cent.

California gasoline shipped through the Panama Canal to eastern ports was 1,598,000 barrels in June, an increase of 6.67 per cent over May. For the first six months of the year 10,314,000 barrels were shipped compared to 7,289,000 barrels in the same period of 1928; this is an increase of 41.50 per cent.

Of the gasoline produced in June 57 per cent was straight run, 33 per cent cracked and 10 per cent natural gasoline. For the first six months in 1929, 58 per cent was straight run, 32 per cent cracked and 10 per cent natural gasoline; these percentages were the same as for the first six months of 1928.

Straight run gasoline production in California was 67 per cent, 64 per cent in Appalachian, 54 per cent in Indiana, Illinois and Kentucky, 61 per cent in Oklahoma, Kansas and Missouri. Cracked gasoline production accounted for 44 per cent of the gasoline in Rocky Mountain territory, 43 per cent in Indiana, Illinois and Kentucky, and 43 per cent on the East Coast. In Louisiana and Arkansas 22 per cent of the production was natural gasoline and 21 per cent in California.

Natural Gasoline

June natural gasoline production was up 1,671 barrels daily average above May. Stocks at the end of June were 1,356,263 barrels, a decline of 34,189 barrels over May stocks. Motor fuel blends made in June were 9,954 barrels less than May output, while stocks were up 2,432 barrels over those held at the end of May.

California's natural gasoline production accounted for most of the increase in June. Daily average production in California was 3,028 barrels greater than in May. Santa Fe Springs had an increase of 2,256 barrels. Changes in other California fields were nominal. Production in the Appalachian district declined 1,044 barrels. Kansas had a decline of 241 barrels and Texas of 397 barrels. Oklahoma production increased 547 barrels.

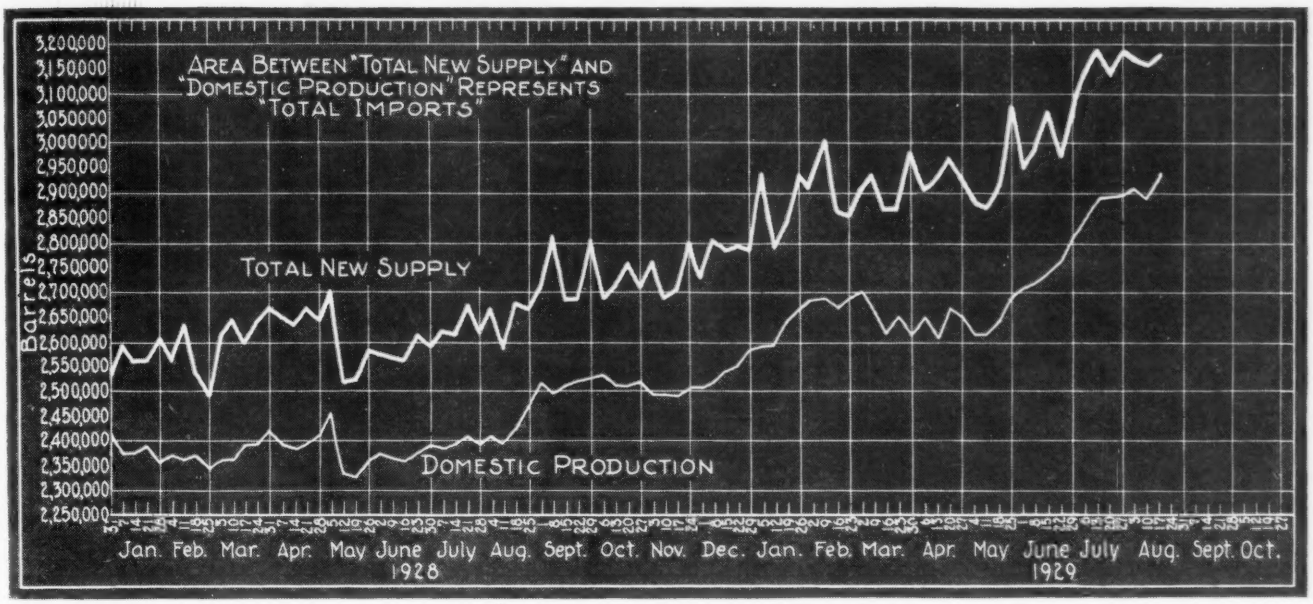
Stocks declined in Oklahoma, Kansas, Louisiana, and Rocky Mountain districts. Increases were made in California and Texas. Oklahoma's decrease amounted to 61,999 barrels, 36,095 in Osage, 5,524 in Seminole and 20,380 barrels in the rest of the state. Kansas stocks dropped 4,500

(*Continued on Page* 138)

Coke, Asphalt, Miscellaneous Products

	Coke Output (Tons)	Coke Stocks (Tons)	Asphalt Output (Tons)	Asphalt Stocks (Tons)	Miscel. Products Output (Bbls.)	Miscel. Products Stocks (Bbls.)	Unfin. Oil Output (Bbls.)	Unfin. Oil Stocks (Bbls.)	Losses (Bbls.)	
January, 1928	103,200	331,300	202,000	219,000	613,000	1,183,000	2,293,000	36,762,000	2,142,000	January, 1928
February	100,100	335,100	207,000	233,900	633,000	1,297,000	2,199,000	37,282,000	1,976,000	February
March	107,200	352,400	265,200	269,800	659,000	1,527,000	2,282,000	37,128,000	2,268,000	March
April	109,400	342,100	273,800	273,700	656,000	1,601,000	2,478,000	38,215,000	2,222,000	April
May	118,400	348,300	330,700	262,200	879,000	1,392,000	2,792,000	38,762,000	2,398,000	May
June	118,100	343,700	331,600	270,800	892,000	1,130,000	2,325,000	38,380,000	2,578,000	June
July	127,000	384,900	330,800	247,200	938,000	1,200,000	2,787,000	40,657,000	2,820,000	July
August	136,100	402,100	316,400	225,500	991,000	857,000	2,530,000	39,596,000	2,660,000	August
September	119,100	402,200	305,600	202,900	873,000	748,000	2,226,000	39,732,000	2,644,000	September
October	125,000	404,400	319,800	209,900	867,000	723,000	1,954,000	38,452,000	2,657,000	October
November	131,000	418,800	244,400	228,000	723,000	726,000	2,838,000	38,114,000	2,388,000	November
December	132,000	436,900	169,800	235,500	677,000	635,000	3,166,000	38,601,000	2,275,000	December
January, 1929	137,900	403,800	188,400	229,100	661,000	653,000	2,513,000	38,264,000	2,542,000	January, 1929
February	126,700	388,100	208,200	235,600	617,000	652,000	2,273,000	38,170,000	2,059,000	February
March	129,400	402,400	227,500	250,100	738,000	691,000	2,873,000	38,471,000	2,602,000	March
April	130,700	444,900	282,600	248,800	763,000	735,000	4,553,000	39,645,000	2,910,000	April
May	141,900	471,200	315,100	236,300	994,000	814,000	4,405,000	40,305,000	2,701,000	May
June	153,800	498,400	326,900	247,100	1,114,000	750,000	4,333,000	42,575,000	3,283,000	June

Daily Average Crude Oil Production and Imports



Daily average gross output of United States, by fields, for week ending with dates below as compiled by American Petroleum Institute

PRODUCTION SUMMARY

	Aug. 17	Aug. 10
Production east of Rockies	**2,059,750**	**2,042,800**
Increase		**16,950**
Total production in U. S.	**2,941,550**	**2,896,000**
Increase		**45,550**
Crude oil imports	**251,000**	**256,571**
Decrease		**5,571**
Total crude supply	**3,192,550**	**3,152,571**
Increase		**39,979**

OKLAHOMA

	Aug. 17	Aug. 10
Allen Dome	14,450	25,200
Asher	10,500	11,200
Blackwell	3,750	3,800
Bowlegs	32,650	33,550
Braman	3,950	3,950
Bristow-Slick	20,500	20,800
Burbank	18,850	18,950
Carr City	12,600	13,150
Cromwell	8,000	8,000
Cushing	18,500	18,500
Davenport	1,400	1,400
Duncan District	7,500	7,450
Earlsboro	86,650	81,750
East Seminole	5,400	4,900
Fox	1,400	1,400
Garber	5,750	5,700
Graham	4,300	4,300
Healdton	13,100	13,150
Hewitt	7,850	7,850
Hubbard	1,800	1,800
Little River	77,700	79,150
Logan County	19,500	21,000
Maud	13,700	13,000
Mission	26,350	28,500
North Okmulgee	12,650	12,650
Oklahoma City	34,700	32,950
Osage (outside Burbank)	26,300	26,400
Papoose	3,250	3,250
Pearson	1,150	1,200
St. Louis	71,300	70,400
Scholem-Alechem	12,700	12,700
Searight	12,200	12,100
Seminole	33,100	33,250
South Okmulgee	8,300	8,300
Thomas	850	850
Tonkawa	9,150	9,200
Wewoka	4,650	4,650
Yale-Jennings	7,050	7,050
Others	60,500	61,000
Total, Oklahoma	724,000	724,400
Decrease		400

KANSAS

	Aug. 17	Aug. 10
Augusta-Fox Bush	3,100	3,100
Churchill	7,100	7,200
Eldorado-Towanda	13,000	13,050
Florence-Covert	950	950
Greenwood County	20,600	20,400
Oxford	4,100	4,300
Peabody-Elbing	3,400	4,100
Rainbow Bend	1,050	1,050
Russell	3,200	3,200
Sedgwick County	36,000	36,350
Others	34,800	34,500
Total, Kansas	127,300	128,200
Decrease		900

NORTH LOUISIANA

	Aug. 17	Aug. 10
Bellevue	650	650
Caddo, light	8,900	9,350
Caddo, heavy	3,350	3,300
Cotton Valley	2,400	2,400
De Soto and Red River	3,600	3,650
Elm Grove	550	500
Haynesville	5,000	5,050
Homer	3,900	3,900
Pleasant Hill	1,750	550
Urania	6,300	6,400
Others	250	250
Total, North Louisiana	36,650	36,000
Increase		650

ARKANSAS

	Aug. 17	Aug. 10
Champagnolle	6,800	7,050
El Dorado	4,650	4,600
Lisbon	1,250	1,200
Nevada	1,000	1,000
Smackover, light	6,050	6,000
Smackover, heavy	46,300	46,350
Stephens	1,000	1,000
Others	100	100
Total, Arkansas	67,150	67,300
Decrease		150

TEXAS (Outside Gulf Coast)

Panhandle District

	Aug. 17	Aug. 10
Carson County	9,200	9,250
Gray County	83,500	72,500
Hutchinson County	25,300	25,950
Wheeler County	800	950
Others	1,200	1,200
Total, Panhandle Texas	120,000	109,850
Increase		10,150

North Texas

Archer County	19,500	19,000
Burkburnett	8,600	8,650
Electra	11,450	11,600
Iowa Park and K. M. A.	4,300	4,400
Montague-Cooke	17,450	14,850
Wilbarger	31,200	29,150
Others	800	700
Total, North Texas	93,300	88,350
Increase		4,950

West Central Texas

Brown County	7,700	7,800
Callahan County	4,050	4,200
Coleman County	6,250	5,800
Eastland-Desdemona	7,300	7,200
Jack County	3,500	3,300
Palo Pinto County	400	350
Shackelford County	11,000	10,800
Stephens County	6,700	6,800
Throckmorton County	700	700
Young County	9,450	10,250
Others	700	700
Total, West Central Texas	57,750	57,900
Decrease		150

West Texas

Crane and Upton Counties	47,100	45,300
Crockett County	2,100	2,000
Howard County	38,500	40,000
Jones County	3,200	3,300
Mitchell and Scurry Counties	2,700	2,600
Pecos County	130,300	135,000
Reagan County	17,500	17,800
Winkler County	141,000	140,000
Others	1,400	1,500
Total, West Texas	383,800	387,500
Decrease		3,700

East Central Texas

Boggy Creek	2,700	2,700
Corsicana-Powell	7,150	7,200
Currie	400	400
Mexia	5,150	5,100
Nigger Creek	300	300
Richland	350	350
Wortham	950	900
Total, East Central Texas	17,000	16,950
Increase		50

Southwest Texas

Dale	350	350
Laredo District	10,500	10,750
Luling	11,100	11,000
Lytton Springs	950	950
Salt Flat	47,200	48,250
Somerset	1,250	1,300
Others	4,950	4,800
Total, Southwest Texas	76,300	77,400
Decrease		1,100
Total, Texas (Outside Gulf Coast)	748,150	737,950
Increase		10,200

GULF COAST

Coastal Texas

Barbers Hill	18,000	13,700
Batson	1,350	1,300
Big Creek	4,300	3,250
Blue Ridge	2,700	2,800
Boling	1,400	1,500
Damon Mound	600	600
Goose Creek	5,500	5,550
Hull	7,400	8,000
Humble	5,400	5,900
Orange County	2,800	2,800
Pierce Junction	15,350	16,500
Raccoon Bend	8,300	7,900
Saratoga	900	950
Somerville	2,200	2,500
Sour Lake	2,700	2,700
South Liberty	5,400	5,700
Spindletop	25,800	25,100
Sugarland	11,650	11,400
West Columbia	6,350	6,300
Others	4,000	4,200
Total, Coastal Texas	132,100	128,650
Increase		3,450

Coastal Louisiana

East Hackberry	2,300	2,400
Edgerly	1,300	750
Evangeline	2,300	2,300
Lockport	3,400	3,500
Old Hackberry	2,000	1,900
Sorrento Dome	200	200
Sulphur Dome	3,150	3,300
Sweet Lake	50	50
Vinton	4,200	4,200
Others	1,200	1,600
Total, Coastal Louisiana	20,100	20,200
Decrease		100
Total Gulf Coast	152,200	148,850
Increase		4,650

ROCKY MOUNTAIN

Wyoming

Big Muddy	2,300	2,300
Elk Basin	750	800
Grass Creek	2,300	2,150
Labarge	2,500	2,350
Lance Creek	200	200
Lost Soldier	3,950	3,900
Oregon Basin	5,900	5,900
Rock Creek	2,400	2,450
Salt Creek	32,600	30,250
Others	4,150	3,800
Total Wyoming	57,050	54,100
Increase		2,950

Montana

Cat Creek	1,450	1,450
Pondera	3,050	3,000
Sunburst	6,950	6,950
Others	100	100
Total, Montana	11,550	11,500
Increase		50

Colorado

Florence	900	900
Fort Collins	2,500	2,450
Moffat (Craig)	1,200	1,100
Others	2,250	2,300
Total, Colorado	6,850	6,750
Increase		100

New Mexico

Artesia	850	850
Hogback	100	100
Rattlesnake	1,150	1,250
Others	450	450
Total, New Mexico	2,550	2,650
Decrease		100
Total, Rocky Mountain	78,000	75,000
Increase		3,000

CALIFORNIA

Dominguez	9,500	10,000
Elwood-Goleta	22,800	23,500
Huntington Beach	44,000	44,500
Inglewood	24,000	23,500
Kettleman Hills	4,000	4,000
Long Beach	168,000	169,000
Midway-Sunset	68,000	68,500
Rosecrans	6,500	6,600
Santa Fe Springs	289,000	260,000
Seal Beach	47,000	47,500
Torrance	12,600	12,600
Ventura Avenue	60,000	57,000
Others	126,400	126,500
Total, California	881,800	853,200
Increase		28,600

EASTERN

(Including Ill., Ind., Ky., O., W. Va., Pa., and N. Y.)	126,300	125,100
Increase		1,200

Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

Mid-Continent Refinery Operations Week Ended August 16 (By Telegraph)

	Kansas	Oklahoma	North & Cent. Texas	West Texas	North La.-Ark.	Total Week Ended Aug. 16
Plants Reporting	12	29	25	15	12	93
Da. Av. Cap. (Bbls.)	92,000	160,200	86,600	81,500	54,900	475,200
Da. Cracking Capacity	30,700	52,600	17,200	5,000	22,700	128,200
Da. Av. Crude Runs	67,732 — 0.9	117,941 + 2.9	62,595 + 7.8	46,962 + 5.4	61,179 + 18.5	356,409 + 5.7
Da. Av. Other Oils	6,970 — 38.0	6,360 — 35.2	4,518 +153.3	1,423 — 11.7	3,910 — 0.6	23,181 — 18.3
GASOLINE—Gallons						
Stocks, Aug. 9	19,203,000	63,494,000	14,912,000	7,226,000	12,412,000	117,247,000
Prod. 8-9 to 8-16	10,491,000 — 9.5	18,039,000 — 3.6	8,265,000 + 20.6	3,831,000 + 5.3	6,145,000 + 12.2	46,771,000 + 1.1
Ship. 8-9 to 8-16	13,033,000 + 7.3	21,513,000 + 10.9	9,353,000 + 19.1	2,715,000 — 38.8	6,106,000 — 11.2	52,720,000 + 3.9
Stocks, Aug. 16	16,661,000 — 13.2	60,020,000 — 5.5	13,824,000 — 7.3	8,342,000 + 15.4	12,451,000 + 0.3	111,298,000 — 5.1
Ratio Sales to Prod.	124.2%	119.3%	113.2%	70.9%	99.4%	112.7%
KEROSENE—Gallons						
Stocks, Aug. 9	7,292,000	5,865,000	2,188,000	50,000	865,000	16,260,000
Prod. 8-9 to 8-16	3,135,000 + 42.4	2,474,000 + 6.8	1,530,000 + 10.6	14,000 — 39.1	600,000 +201.5	7,753,000 + 26.6
Ship. 8-9 to 8-16	3,200,000 + 19.0	3,300,000 + 29.2	1,826,000 + 19.1	18,000 +800.0	388,000 + 37.6	8,732,000 + 23.7
Stocks, Aug. 16	7,227,000 — 0.9	5,039,000 — 14.1	1,892,000 — 13.5	46,000 — 8.0	1,077,000 + 24.5	15,281,000 — 6.0
Ratio Sales to Prod.	102.1%	113.4%	119.3%	128.6%	64.7%	112.6%
STOVE DISTILLATE—Gallons						
Stocks, Aug. 9	1,966,000	5,917,000	865,000	59,000	34,000	8,841,000
Prod. 8-9 to 8-16	169,000 — 46.0	551,000 — 20.9	151,000 + 19.8	32,000 — 25.6	125,000 — 22.4	1,028,000 — 23.3
Ship. 8-9 to 8-16	306,000 + 19.1	481,000 — 22.4	143,000 — 5.9	42,000 — 39.1	79,000 — 53.0	1,051,000 — 17.0
Stocks, Aug. 16	1,829,000 — 7.0	5,987,000 + 1.2	873,000 + 0.9	49,000 — 16.9	80,000 +135.3	8,818,000 — 0.3
Ratio Sales to Prod.	181.0%	87.3%	94.7%	131.3%	63.2%	102.2%
GAS OIL—Gallons						
Stocks, Aug. 9	9,409,000	31,927,000	3,777,000	10,622,000	7,221,000	62,956,000
Prod. 8-9 to 8-16	1,185,000 — 30.0	2,832,000 + 15.8	1,311,000 + 14.5	301,000 — 48.3	2,258,000 + 20.4	7,887,000 + 7.2
Ship. 8-9 to 8-16	4,464,000 +116.2	1,561,000 — 0.5	1,297,000 + 16.5	950,000 + 17.9	2,421,000 + 1.9	10,693,000 + 34.9
Stocks, Aug. 16	6,130,000 — 34.8	33,198,000 + 4.0	3,791,000 + 0.4	9,973,000 — 6.1	7,058,000 — 2.3	60,150,000 — 4.5
Ratio Sales to Prod.	376.7%	55.1%	98.9%	315.6%	107.2%	135.6%
FUEL OIL—Gallons						
Stocks, Aug. 9	15,924,000	57,394,000	54,581,000	29,665,000	26,735,000	184,299,000
Prod. 8-9 to 8-16	5,491,000 — 19.4	7,301,000 + 7.4	7,250,000 + 4.9	7,290,000 + 6.9	7,805,000 + 10.5	35,137,000 + 2.2
Ship. 8-9 to 8-16	6,095,000 + 3.5	7,905,000 — 5.1	9,772,000 + 55.0	8,211,000 + 0.3	8,970,000 + 22.1	40,953,000 +13.6
Stocks, Aug. 16	15,320,000 — 3.8	56,790,000 — 1.1	52,059,000 — 4.6	28,744,000 — 3.1	25,570,000 — 4.4	178,483,000 — 3.2
Ratio Sales to Prod.	110.9%	108.3%	134.8%	112.6%	114.9%	116.6%

Gasoline Produced by Various Methods, Week Ended August 16

	Kansas	% of Total	Oklahoma	% of Total	North & Cent. Texas	% of Total	West Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run	5,526,000	52.7	12,137,000	67.3	5,989,000	72.6	3,613,000	94.3	2,106,000	34.3	29,371,000	62.8
Cracked	4,523,000	43.1	4,499,000	24.9	1,685,000	20.4	.....	....	3,351,000	54.5	14,058,000	30.1
Natural	442,000	4.2	1,403,000	7.8	591,000	7.0	218,000	5.7	688,000	11.2	3,342,000	7.1
Total	10,491,000		18,039,000		8,265,000		3,831,000		6,145,000		46,771,000	

+ or — columns are % change over previous week.

Mid-Continent Gasoline Stocks Down 6,000,000 Gallons

Staff Special—By Telegraph
TULSA, Aug. 19

FOR the second time within a month stocks of all major commodities in the Mid-Continent were reduced according to compilation of operations reported to NATIONAL PETROLEUM NEWS for week ended Aug. 16.

Gasoline stocks for the field were reduced 6,000,000 gallons. This is the seventh consecutive week gasoline stocks have been lowered. Oklahoma refiners contributed 3,500,000 gallons towards this reduction, while Kansas refiners contributed 2,500,000 gallons. North Texas refiners reduced stocks 1,000,000 gallons. West Texas added 1,000,000 gallons to storage. Stocks were increased 40,000 gallons in Louisiana-Arkansas district.

Kerosene stocks were reduced 980,000 gallons. Distillate stocks were down 23,000 gallons. Gas oil stocks were reduced 2,800,000 gallons and fuel oil stocks 5,800,000 gallons.

Summary for the Month

Production and shipments, all reporting refineries, for four weeks ended Aug. 16. Change in stocks figured from July 19.

GASOLINE

	Gallons
Production	187,228,000
Shipments	209,225,000
Net change in stocks	—21,997,000
Ratio sales to production	111.7%

KEROSENE

	Gallons
Production	26,815,000
Shipments	30,252,000
Net change in stocks	—3,437,000
Ratio sales to production	112.8%

STOVE DISTILLATE

	Gallons
Production	4,720,000
Shipments	4,894,000
Net change in stocks	—174,000
Ratio sales to production	103.7%

GAS OIL

	Gallons
Production	32,410,000
Shipments	38,544,000
Net change in stocks	—6,134,000
Ratio sales to production	118.9%

FUEL OIL

	Gallons
Production	143,496,000
Shipments	152,957,000
Net change in stocks	—9,461,000
Ratio sales to production	106.6%

Joseph Bartles Dies In California

MILWAUKEE, Aug. 17.—Announcement of the recent death of Joseph Bartles, founder of the Bartles-Maguire Oil Co., at his California home, is contained in the current issue of The Thunder Bird, official publication of the Wisconsin Petroleum Association.

News of the death of Mr. Bartles reached Milwaukee on the same day that announcement was made of the merger of the Bartles-Maguire Oil Co. with the Wadhams Oil Co.

Mr. Bartles died at Santa Monica, Calif., where he had been living for the past 10 years. He was 84 years of age and had been retired from active business for 15 years.

In the early days of the oil industry in Pennsylvania Mr. Bartles was a familiar figure. At one time he manufactured all the paint used by the Standard Oil Co. He founded the Bartles-Maguire Co. in 1909.

New England Oil Men Discuss Code

NEW YORK, Aug. 17.—Forty-five members of the Independent Oil Men's Association of New England, attended the monthly meeting Aug. 14, at the Rhode Island Country club, near Nayat, R. I. They were guests of A. A. Harrison, of Fall River, Mass., president of the Borden Remington Co.

There was the usual luncheon and dinner, and golf in the afternoon. At a short business meeting the code of ethics was discussed but no action was taken.

Speeches on the subject were made by Fred Hale, salesmanager of the Beacon Oil Co., and P. A. Brewer, owner of the United Oil Co. of Boston, and the Radio Oil Co. of Worcester. Fred Bergfors, of the Quincy Adams Oil Co. of Boston, was in charge of the meeting in the absence of the association's president, Albert Tattersal, Bellis Oil Co. of Worcester.

Mr. Bartram, of the Bennett Pump Corp. won the honors in the August golf competition for the silver loving cup donated by W. C. Burns, of the Richfield Oil Co. of New York. Play for the cup started in July and will end in October when the low medalists of the season meet in the play-off at Worcester, Mass.

RICHMOND, Va., Aug. 16.—A new oil marketer at Rockingham, N. C. is the Superior Oil Co., with authorized capital stock of $10,000. Incorporators are Mrs. A. L. McDonald. Katherine McRae and M. W. McRae, all of Rockingham.

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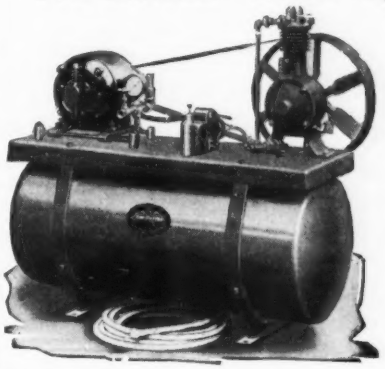

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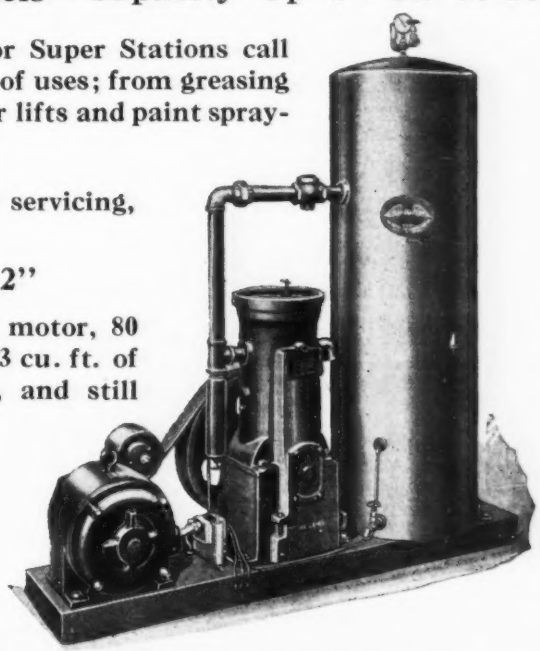

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Gasoline Demand, Price Improves In Mid-Continent Area

Staff Special
TULSA, Aug. 17

MID-CONTINENT gasoline shipments continued at a high level with movement to northern and central states reported on a larger scale. Another 0.25 cent price advance by most of the Mid-Continent refiners put the general market in an unsettled condition the first half of the week but prices were fairly uniform by the end.

No large buying of natural gasolines was reported but the steady demand caused a shortage of some grades. Prices moved upward. One large company was in the market buying grades AA and BB.

Less kerosene was produced the past week and goods was reported scarce for prompt shipment in one district. Demand was good at all points with fractional price advances.

Distillates and gas oil demand was brisk with prices higher on the latter product. The better grades of fuel oil were comparatively scarce and buyers reported paying higher prices. Lower gravity grades sold at spotty prices.

Spot business on bright stock was confined to one or two refiners at unchanged prices. Other refiners reported they were sold up for the balance of the month. Neutral oils and wax were generally unchanged.

Gasolines

Gasoline shipments out of Mid-Continent area continued at a high level the past week. Prices moved upward in all districts. Movement on a larger scale to north and central states was reported. This would indicate that refiners were slowly regaining some of the business lost in these markets the past few months to lower-priced competitors.

Another 0.25 cent advance on 58-60 U. S. Motor quotations was made by several leading Oklahoma refiners on Aug. 12. This caused an unsettled market for a few days. Several of the refiners were slow to meet this new 7.75 cent price and continued to sell goods as low as 7.25 cents. Buyers apparently sensing an upward trend to the market soon bought most of the lower priced gasoline. By the close of the week the market was well established at a 7.50 to 7.75 cent price range.

For the first time in several months —taking freight differential into consideration—North and West Texas refiners were generally quoting 58-60 U. S. Motor on a price parity with Oklahoma refiners. The few West Texas refiners that make full specification U. S. Motor gasoline reported that gasoline stocks were at a favorable level considering the excellent demand.

Kansas refiners placed most of their business at 7.75 to 8 cents for intrastate shipment and quoted from 7.50 to 7.75 cents on a Group 3 basis. One large refiner said that where formerly most of his jobbing trade would order only one car for rush shipment, they were now ordering in three and four car lots spread over a period.

At the beginning of the week most of the Arkansas and Louisiana refiners quoted 58-60 U. S. Motor at 7.50 cents and lower. Most of the distress gasoline soon moved out of the market at this price and with prices steadily advancing in outside districts, quotations were advanced to 7.75 cents, with some sales heard as high as 8 cents.

No export buying was reported. In only one or two instances did higher gravity gasolines show any price improvement over the previous week.

Natural Gasolines

No large buying of natural gasolines developed but the steady demand for all grades was sufficient to cause an upward movement of prices.

It was understood that early in the week a large company announced a standing offer to the trade of 6 cents for grade BB. The week ended with this grade being quoted mostly from 6 to 6.25 cents. This same company was also reported to be buying some grade AA at around 6.50 cents. Little of the latter grade was offered under this price and some sales were reported as high as 6.75 cents late in the week.

Kerosene

All districts reported an improved kerosene business. With most refiners curtailing crude runs the volume of kerosene production has been reduced materially. With less goods in the market, kerosene was offered at higher prices in all markets.

Texas refiners had an increased business on northern shipments and goods were not as plentiful for immediate shipment as was the case two weeks ago.

Kansas refiners still found kerosene scarce in that district and several purchases were made from outside districts.

Arkansas and Louisiana refiners business was only fair but sufficient to cause a fractional price advance by most sellers.

Distillates and Gas Oil

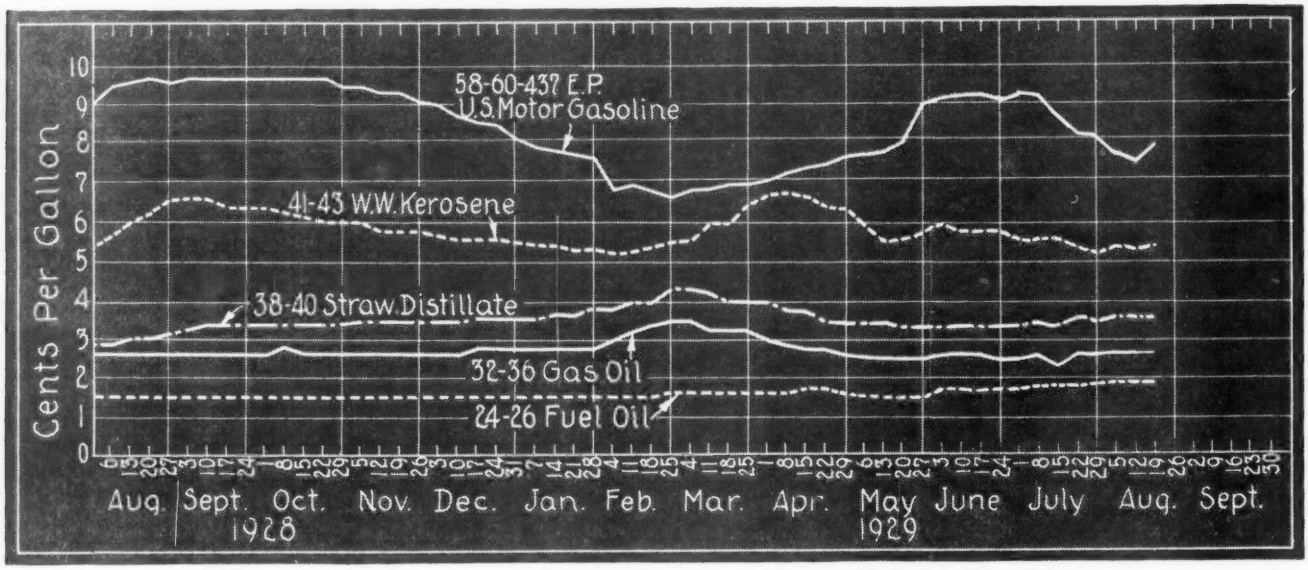
A brisk demand continued for distillate. Prime white goods were bringing a premium in one or two districts as goods were scarce. One or two sales of 38-40 prime white in Oklahoma brought 4 cents.

Buying of gas oils was sufficient to cause prices to advance fractionally in all districts. Where formerly 32-36 dark gas oil was offered by a few sellers at 2.375 cents no sales were checked from these sellers under 2.50 cents. The better grades were slightly higher in price as jobbers continued to buy apparently for storage.

Fuel Oils

The better grades of fuel oils were in active demand in several districts.

Current Prices of Principal Mid-Continent Refined Products


Cents Per Gallon
58-60-437 E.P. U.S. Motor Gasoline
41-43 W.W. Kerosene
38-40 Straw Distillate
32-36 Gas Oil
24-26 Fuel Oil
Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1928
1929

Prices shown are in Group 3 basis and extended to date shown in Refinery Market Tables Section of this issue

One or two sales managers in Oklahoma and Kansas reported receiving instructions not to offer certain grades of the higher gravities on the market.

Sales of the lower grades—below 20 gravity—were spotty. Several sellers in all districts advanced prices fractionally while others continued to offer goods at previous week's prices. Again the sulfur content played an important part in causing a wide range of quotations.

Neutral Oils, Bright Stock

Demand for neutral oils continued to fall off somewhat but with only a few exceptions prices were generally in line with previous quotations.

Little bright stock was available in the open market. Only one or two sellers were quoting for spot shipment. Others reported being sold up for the month with sizable orders already placed on their books for September business.

Buying of wax was somewhat improved with a sizable order placed late in the week with an Oklahoma seller. Goods were sold generally in line with previous prices.

Crude Price Changes

OIL CITY—On Aug. 16 Joseph Seep Purchasing Agency reduced all grades of Pennsylvania crude 25 cents, except Macksburg district crude in Buckeye lines which was reduced 30 cents. Corning, Somerset and Ragland were unchanged.

New prices are: Pennsylvania grade crude in New York and National Transit lines (Bradford-Allegheny and other Pennsylvania), $3.30 for oil run on and after July 1; and $3.25 for oil run prior to July 1 in these lines; other Pennsylvania crude in Southwest Pennsylvania lines, $3.25; Pennsylvania in Eureka lines (West Virginia), $3.15; and Pennsylvania crude in Buckeye lines (Macksburg, O.), $2.95.

Last previous change on Pennsylvania crude was a 25 cent cut on Aug. 1.

Explosives Conference Called Sept. 17

CLEVELAND, Aug. 17.—A conference of interest to oil companies will be held on the transportation of explosives and other dangerous articles by freight and express and in baggage service, called by the Interstate Commerce Commission for Sept. 17 at Hotel Traymore, Atlantic City. The conference has been called for receiving objections and suggestions regarding amendments to regulations on transporting explosives.

TULSA, Aug. 19.—Al Horton has been named manager of the marketing division of the Continental Oil Co., embracing the Tulsa and Ponca City stations. The two divisions were recently combined.

TULSA, Aug. 19.—The Oklahoma division salesmen for the Pierce Petroleum Corp. held a two day meeting here Aug. 8 and 9, with T. W. O'Donnell, division manager, in charge. Among those present were C. C. Fredericks, assistant director of sales; A. J. Gutweiler, manager of advertising and sales promotion, all of St. Louis, and G. A. Steele, president of the Pierce Oil Co. of Mexico, Tampico.

Prices 10 Years Ago
Aug. 18, 1919

	Oklahoma	Penna.
58-60 U. S. Motor.....	17.50–17.75	20.50–21.00
80-84 Natural	21.00–21.25	.....
Kerosene (41-43 Okla.; 47 w. w. Pa.).....	9.00–9.25	11.75
Fuel Oil (24-26 Okla.; 38-40 Pa.)	$0.85	4.75–5.00
Crude (Okla. 35-35.9).....	$2.25	$4.00
Chicago tank wagon.....	.....	21.00c

Prices A Year Ago
Aug. 20, 1928

	Oklahoma	Penna.
58-60 U. S. Motor.....	9.75c	11.75–12.00c
Grade A Natural.....	10.75c	.....
Kerosene (Ok. 41-43; Pa. 47 w. w.)	6.25c	7.25–7.50c
Fuel Oil (Ok. 24-26; Pa. 36-40)	$0.65–$0.675	4.75–5.00c
Crude (Ok. 35-35.9).....	$1.31	$3.10
Chicago tank wagon.....	.....	15.00c

Chicago Resale Market

Light and Heavy Oil Demand Better

Staff Special
CHICAGO, Aug. 17

A FEELING of optimism prevailed among most sellers in the Chicago resale market as the week ended. Both light and heavy oils were in better demand. U. S. Motor gasoline prices advanced .25 cent during the week.

Nearly all sellers reported sales of U. S. Motor gasoline on spot were increased considerably over the past several weeks. This demand was not for any large quantities but for two and three car orders. Jobbers buying on contracts, were also active and were, in general, taking out maximum requirements. Reports of record breaking service station business continued to come in from distributors.

Most of the Chicago trade was watching closely the eastern situation following the 25 cent reduction in Pennsylvania crude on Aug. 15. The opinion was general, however, that this cut would have no effect on the local situation.

The gasoline price trend continued upward during the week and Aug. 17 found most sellers doing business at prices 0.25 cent higher than at the beginning of the week. Sales of Oklahoma U. S. Motor were mostly at 7.25 to 7.50 cents on Aug. 12 and closed the week at 7.50 to 7.75 cents. The major refiners in the Oklahoma and Chicago districts raised their price from 7.50 to 7.75 cents early in the week and most of the Chicago marketers brought theirs up from 7.25 to 7.50 cents by the end of the week.

Sales of U. S. Motor were reported at 7.375 cents on Aug. 17 but these were scattered and in most cases for goods which the seller had bought at 6.75 or 7 cents. Marketers reported that there was practically no full specification U. S. Motor available for resale purposes in Oklahoma under 7.25 cents.

Some U. S. Motor gasoline was coming into this territory from West and North Texas under the prevailing Oklahoma market but there was not enough sales reported to affect the market to any appreciable extent.

Practically all sales reported this week were for immediate shipment. Jobbers were dubious about buying over any considerable period. On the other hand few refiners or marketers were willing to sell ahead.

The demand for the higher gravity gasolines was seasonal. The consumption of these grades has been hampered considerably by the extensive use of anti-knock gasolines. Prices were 0.125 to 0.25 cent higher, in line with U. S. Motor.

The demand for kerosene was spotty. A number of sellers said they were enjoying a fine business and most of them were asking higher prices. On the other hand others of the trade characterized demand as slow and continued to quote the same price as last week. Little 41-43 w.w. kerosene was available under 5.25 cents at the end of the week.

The heavy oil market showed more life this week than for some time past. Demand from industrial concerns continued at a good clip and considerably more interest was being taken by distributors of home burner oils.

Several sellers reported selling distillate and zero gas and fuel oils for storage purposes, while others said that distributors were interested but were reluctant to fill their storage at present price levels.

One of the largest refiners in this district, was practically out of the market on gas and heavy fuel oils and this brought a nominal scarcity of these oils for immediate shipment.

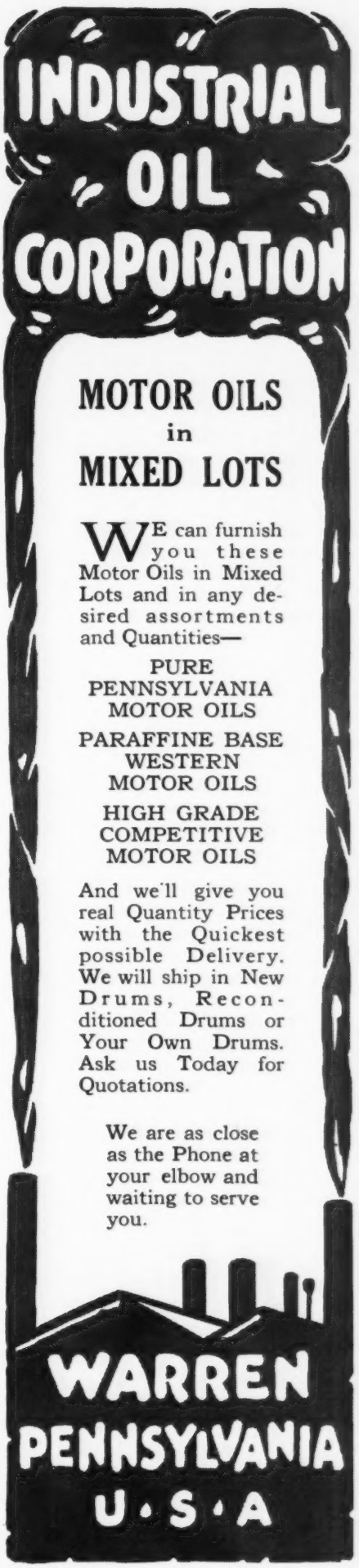
Generally fair the first part of next week in Standard of Indiana territory with a shower period at the close is the weather forecast. Temperatures will remain moderate most of the week.

Illinois Jobbers Frolic Held at Galesburg

CHICAGO, Aug. 17.—The Soengataha Country club, Galesburg, was the scene of the third annual Summer Frolic of the Illinois Petroleum Marketers on Aug. 15. About 150 oil jobbers and guests were present.

The morning was devoted to a business meeting while the afternoon was given over to sports, featuring a golf tournament. Jobbers from Kewanee came via bus and brought along an eight piece Dutch band, which furnished entertainment during the morning and at luncheon.

The principal speaker was Mr. Kettleman of the state finance department. He talked on the new Illinois gasoline tax law, explaining its different provisions and methods of enforcement. An address was also given by the president of the Galesburg Chamber of Commerce. Mr. Fuller of the C. B. & Q. railroad, Galesburg acted as toastmaster.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WE can furnish you these Motor Oils in Mixed Lots and in any desired assortments and Quantities—
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PARAFFINE BASE WESTERN MOTOR OILS
HIGH GRADE COMPETITIVE MOTOR OILS
And we'll give you real Quantity Prices with the Quickest possible Delivery. We will ship in New Drums, Reconditioned Drums or Your Own Drums. Ask us Today for Quotations.
We are as close as the Phone at your elbow and waiting to serve you.
WARREN PENNSYLVANIA U·S·A

Refinery Markets on Light Oils and Lubricants

Prices given below are in cents per gallon, F. O. B. refinery except where $ is shown

(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)

Comparative Prices of 58-60 U. S. Motor Gasoline, 437 E. P., Group 3 and Point of Origin, to Jobbers Only

In Effect August 19

	Price F.O.B. Group 3	*Price F.O.B. Point of Origin*	*If for Particular Destination*
Oklahoma	7.7412 (Wt. Avg.)	7.7412 (Wt. Avg.)	
Kansas	7.50-7.75		S. O. Neb. & Ind. Ter., etc.
Kansas		8.0000 (Wt. Avg.)	Kansas only.
North Texas	7.375-7.75	7.25-7.50	
West Texas	7.375-7.75	7.25-7.50	
Louisiana-Ark.	7.50-7.75		Mich., Ohio & Indiana.
Louisiana-Ark.		7.75	State or differential haul.
Indiana-Illinois	7.50-7.75	*	S. O. Ind. territory except Detroit and vicinity. For Ohio on delivered basis only.

*Shipments made from E. Chicago, Ind., and Wood River, Ill., according to conditions and freight rates; no prices F.O.B. point of origin can be given.

Weighted Average Prices

OKLAHOMA

	Aug. 19		Aug. 12		Aug. 5	
	No. of cars	**Price**	**No. of cars**	**Price**	**No. of cars**	**Price**
58-60 U. S. Motor, 437 e. p.	85	7.7412	146	7.5334	88	7.4489
60-62 437 e. p. gasoline	No sales reported		1	7.7500	4	7.6875
60-62 400 e. p. gasoline	3	8.1667	1	8.0000	2	8.0625
64-66 375 e. p. gasoline	3	8.5000	2	8.2500	No sales reported	

The above weighted average price for 58-60 U. S. Motor gasoline indicates that little gasoline was available early in the week under the general quotation of 7.75 cents, f.o.b. Oklahoma plants. Prices for the other grades were at a wide range but in general, quotations and sales showed no marked change from the previous week.

KANSAS

	Aug. 19		Aug. 12		Aug. 5	
	No. of cars	**Price**	**No. of cars**	**Price**	**No. of cars**	**Price**
58-60 U. S. Motor, 437 e. p.	2	8.0000	5	7.9500	5	7.8500

Kansas refiners sold 58-60 U. S. Motor gasoline at 0.125 to 0.25 cent higher for intra-state shipment as is shown in the above weighted average. Refiners for the most part sold goods of a Group 3 basis in line with Oklahoma sellers.

GASOLINE AND NAPHTHA

OKLAHOMA	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
48-50 450 e.p. naphtha...	7.50	7.25 – 7.50	7.25 – 7.50
50-52 450 e.p. naphtha...	7.50	7.25 – 7.50	7.25 – 7.50
56-58 450 e.p. gasoline...	7.25 – 7.50	7.00 – 7.25	7.00 – 8.25
58-60 450 e.p. gasoline...	7.375– 7.625	7.125– 7.375	7.25 – 7.375
64-66 390 e.p. gasoline...	8.00 – 8.25	7.875– 8.00	8.00 – 8.25
68-70 350-360 e.p. gasoline	8.375– 8.50	8.375– 8.50	8.50 – 8.75

†Prices nominal ††Only one refiner quoting *Quotations only

CHICAGO RESALE (F. o. b. Group 3, altho goods may originate elsewhere)

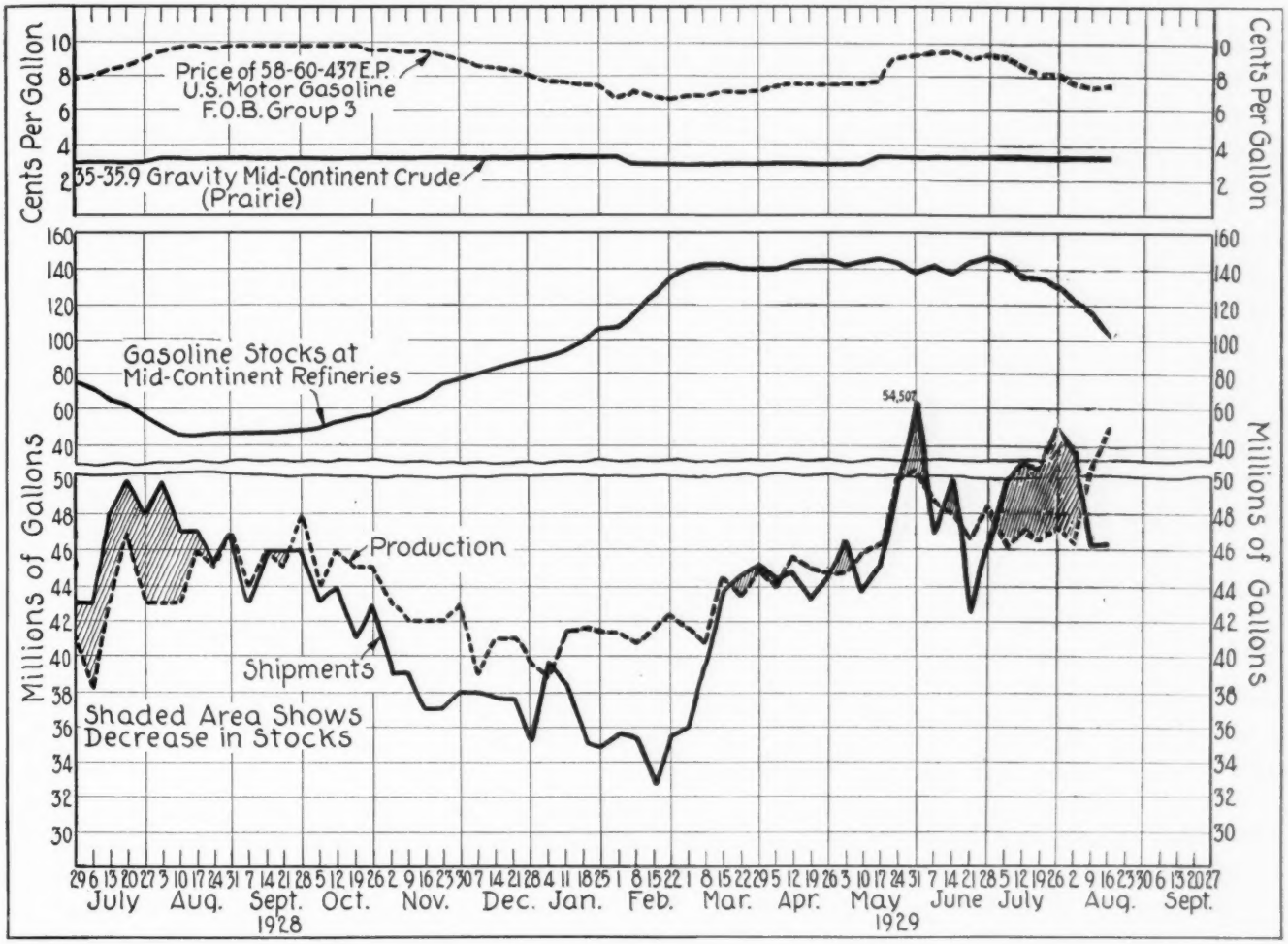
	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
58-60 U.S. Motor, 437 e.p.	7.50 – 7.75	7.25 – 7.50	7.00 – 7.50
60-62 437 e.p. gasoline...	7.50 – 7.875	7.375– 7.50	7.25 – 7.625
60-62 400 e.p. gasoline...	7.75 – 8.00	7.625– 7.875	7.625– 7.75
64-66 375 e.p. gasoline...	8.00 – 8.25	7.75 – 8.125	7.75 – 8.00

(Continued on Page 122)

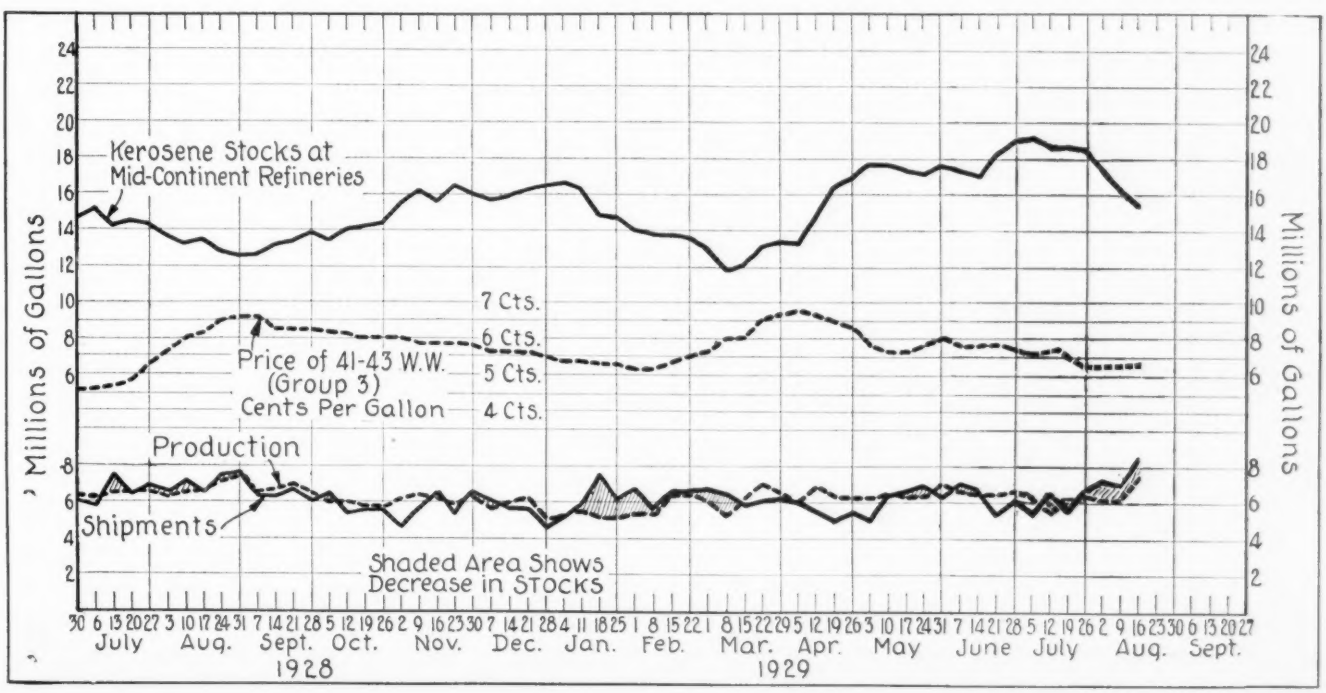
**Represents Both Sales and Quotations.

Barometer of Mid-Continent Refinery Market—Week Ending August 16

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, from Reports Made by 93 Plants to National Petroleum News


Cents Per Gallon
Price of 58-60-437 E.P. U.S. Motor Gasoline F.O.B. Group 3
35-35.9 Gravity Mid-Continent Crude (Prairie)
Gasoline Stocks at Mid-Continent Refineries
54,507
Millions of Gallons
Production
Shipments
Shaded Area Shows Decrease in Stocks
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1928
1929

Prices shown above are extended to date shown in Refinery Market and Crude tables in Market section of this issue and stocks, shipments and Production are extended to date as shown in the table on page 114.



Refinery Markets on Light Oils and Lubricants

Prices given below are in cents per gallon, F. O. B. refinery except where $ is shown

(These Refinery Prices compiled in the OIL PRICE HANDBOOK for a whole year)

PENNSYLVANIA	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
52-54 Naphtha	8.50 – 9.00	8.50 – 9.50	9.00 – 9.75
54-56 Naphtha	8.75 – 9.00	8.75 –10.00	9.25 –10.00
58-60 U.S. Motor 437 e.p.	8.75 – 9.25	8.875– 9.25	9.50 –10.25
60-62 400-410 e.p. gasoline	9.125– 9.50	9.25 – 9.50	9.75 –11.00
64-66 390 e.p. gasoline	9.50 –10.50	9.50 –10.50	10.25 –11.00
68-70 Str-run gas 350-360 e.p.	10.50 –11.50	10.50 –11.50	10.75 –12.00
OHIO (Quotations of S. O. Ohio. 4c state tax to be added.)			
U. S. Motor Gasoline			
Ohio, delivery at any point	10.50	11.00	11.00
KANSAS (F. O. B. refinery Kansas destination)			
60-62 400 e.p. gasoline	8.00 – 8.25	8.00	8.25
64-66 375 e.p. gasoline	8.125– 8.25	8.125– 8.25	8.375– 8.50
NORTH TEXAS			
‡45-47 450 e.p. naphtha	6.75 – 7.00	6.625– 7.00	6.75 – 7.125
56-58 450 e.p. gasoline	7.00 – 7.125	6.625– 6.875	6.75 – 7.125
58-60 450 e.p. gasoline	7.00 – 7.125	6.625– 6.875	6.75 – 7.125
58-60 U.S. Motor 437 e.p.	7.25 – 7.50	6.875– 7.25	6.875– 7.25
60-62 400 e.p. gasoline	7.375– 7.50	7.25 – 7.50	7.25 – 7.50
64-66 390 e.p. gasoline	7.50 – 7.75	7.75	7.875– 8.125
64-66 375 e.p. gasoline	7.75 – 8.00	7.875	8.00 – 8.25
68-70 350-360 e.p. gasoline	8.125– 8.25	8.125	8.375– 8.50
‡Gravity changed from 48-52 to 45-47 Aug. 12.			
****WEST TEXAS (F.o.b. West Texas refinery, for unrestricted shipment)**			
50-52 naphtha	6.75	6.625– 7.00	6.75 – 7.25
56-58 437 e.p. gasoline	6.75 – 7.00	6.50 – 7.00	6.75 – 7.125
58-60 U. S. Motor 437 e.p. gasoline	7.25 – 7.50	6.875– 7.25	6.75 – 7.25
NORTH LOUISIANA (N. La., Ark., and Miss. destination)			
58-60 390 e.p. gasoline	7.75	7.75	8.00
ARKANSAS (Ark., N. La. and Miss. destination)			
58-60 U.S. Motor 437 e.p.	7.75	7.75	8.00
CALIFORNIA (3c tax to be added to California gasoline prices if used in state.)			
54-58 U.S. Motor 437 e.p.	7.50 –10.00	7.50 –10.25	7.75 –10.25
58-61 375-400 e.p. gasoline	10.50 –11.00	10.50 –11.50	10.50 –11.25
42-45 Engine Distillate 445-480 e.p.	6.50 – 7.00	6.50 – 7.00	7.00 – 8.25

NATURAL GASOLINE

(Note: End point of all grades, not over 375 F. Corrosion test adopted Oct. 1, 1927; A.S.T.M. Method D130-27T; doctor test, July 2, 1928.)

OKLAHOMA			
Grade AA, 80-87.9, 90% Recovery	6.50 – 6.75	6.25 – 6.50	6.25
Grade A, 72-79.9, 90% Recovery	6.625– 6.75	**6.375– 6.50	6.25
Grade BB, 84-92, 85% Recovery	6.50 – 6.625	6.00	5.50
Grade B, 76-83.9, 85% Recovery	6.50 – 6.625	6.00	5.50
Grade C, 80-90, 78% Recovery	6.50 – 6.625	6.00	5.50
NORTH TEXAS (F. o. b. Breckenridge)			
Grade AA, 80-87.9, 90% Recovery	6.50 – 6.75	6.25 – 6.50	6.25
Grade A, 72-79.9, 90% Recovery	6.625– 6.75	**6.375– 6.50	6.25
Grade BB, 84-92, 85% Recovery	6.50 – 6.625	6.00	5.50
Grade B, 76-83.9, 85% Recovery	6.50 – 6.625	6.00	5.50
Grade C, 80-90, 78% Recovery	6.50 – 6.625	6.00	5.50
NORTH LOUISIANA (F. o. b. Monroe District)			
Grade AA	†6.75	†6.50	†6.50
Grade BB	†6.75	†6.25	†5.75
Grade C	†6.75	†6.25	†5.75
CALIFORNIA			
75-85, 375-390 e.p. blend	8.00 – 9.00	8.50 – 9.00	8.50 – 9.00

†Prices nominal ††Only one refiner quoting *Quotations only

BURNING OILS

PENNSYLVANIA	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
45 w.w. kerosene	6.125– 6.50	6.125– 6.375	6.00 – 6.25
46 w.w. kerosene	6.375– 7.00	6.375– 7.00	6.50 – 7.00
47 w.w. kerosene	6.75 – 7.50	6.75 – 7.50	6.75 – 7.25
300 mineral seal	7.00 – 7.25	7.25 – 7.375	7.25 – 7.375
CHICAGO RESALE (F. o. b. Group 3, altho goods may originate elsewhere)			
41-43 w.w. kerosene	5.25 – 5.375	5.125– 5.25	5.125– 5.25
OKLAHOMA			
41-43 w.w. kerosene	5.25 – 5.50	5.125– 5.50	5.125– 5.50
42-44 w.w. kerosene	5.75 – 6.00	5.625– 6.00	5.50 – 5.75
KANSAS (F. O. B. refinery Kansas destination)			
41-43 w.w. kerosene	5.75 – 6.00	5.75 – 6.00	5.625– 6.125
42-44 w.w. kerosene	6.00 – 6.25	6.00 – 6.25	6.125– 6.25
NORTH TEXAS			
40-42 w.w. kerosene	5.00	4.75 – 4.875	4.75 – 5.00
41-43 w.w. kerosene	5.00 – 5.25	4.875– 5.125	4.75 – 5.125
NORTH LOUISIANA (N. La., Ark. and Miss. destination)			
41-43 w.w. kerosene	5.625– 5.75	5.50 – 5.75	5.50 – 5.75
42-44 w.w. kerosene	6.00	5.75 – 6.00	5.75 – 6.00
ARKANSAS (Ark., N. La. and Miss. destination)			
41-43 kerosene	5.625– 5.75	5.50 – 5.75	5.50– 5.75
42-44 kerosene	6.00	5.75 – 6.00	5.75 – 6.00
CALIFORNIA			
38-40 w.w. kerosene	5.00 – 5.50	5.00 – 5.50	5.00 – 5.50

NEUTRAL OIL

PENNSYLVANIA Vis.	(Viscosity at 70°F.)		
200 No. 3 Assoc. Filt	26.00 –28.00	27.00 –28.50	27.00 –28.50
180 No. 3 Assoc. Filt	23.00 –25.00	23.50 –26.00	23.50 –25.00
150 No. 3 Assoc. Filt	17.50 –19.00	18.50 –20.00	19.00 –20.00
	(Non Viscous)		
34 Grav. 330-340 Flash	7.50 – 8.00	7.50 – 8.00	7.50 – 8.00
****OKLAHOMA** Vis. Color	(Viscosity at 100°F.)		
100—No. 2	6.00 – 7.00	6.00 – 7.00	6.00 – 7.00
150—No. 3	7.50 – 8.25	7.50 – 8.25	7.50 – 8.25
150—No. 4	6.75 – 7.50	6.75 – 7.50	6.75 – 7.50
180—No. 3	9.00 – 9.50	9.00 – 9.50	9.00 – 9.50
180—No. 4	8.75 – 9.25	8.75 – 9.25	8.75 – 9.25
180—No. 5	8.50 – 9.00	8.50 – 9.00	8.50 – 9.00
200—No. 3	9.50 –11.00	9.50 –11.00	9.50 –11.00
200—No. 4	9.00 –10.25	9.00 –10.25	9.00 –10.25
200—No. 5	8.75 – 9.50	8.75 – 9.50	8.75 – 9.50
220—No. 3	12.50 –13.50	12.50 –13.50	12.50 –13.50
220—No. 4	12.00 –12.50	12.00 –12.50	12.25 –12.50
220—No. 5	11.00 –12.00	11.00 –12.00	11.50 –12.00
240—No. 3	13.00 –13.50	13.00 –13.50	13.00 –13.50
240—No. 4	12.00 –13.00	12.00 –13.00	12.00 –13.00
240—No. 5	11.00 –13.00	11.00 –13.00	11.00 –13.00
280—No. 3	14.00 –16.00	14.00 –16.00	14.00 –16.00
280—No. 4	13.00 –15.00	13.00 –15.00	13.00 –15.00
280—No. 5	12.00 –14.00	12.00 –14.00	12.00 –14.00
300—No. 5-6	.....	16.00 –17.00	16.00 –17.00

**Represents both sales and quotations.

Refinery Markets Wax, Lubricants, Heavy Oil

Prices given below are in cents per gallon, F. O. B. refinery except where $ is shown

(For quick reference to Refinery Prices, get the OIL PRICE HANDBOOK, published annually)

GULF COASTAL

Vis.	Color	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
		(Viscosity at 100°F., pour test 0		
100	No. 2 Pale	6.00 – 6.50	6.00 – 6.50	6.25 – 6.75
200	No. 3 Pale	9.00 – 9.50	9.00 – 9.50	9.25 – 9.75
300	No. 3 Pale	10.00 –10.50	10.00 –10.50	10.50 –11.00
500	No. 3½ Pale	11.50 –12.00	11.50 –12.00	11.50 –12.00
750	No. 4 Pale	12.50 –13.00	12.50 –13.00	12.50 –13.00
200	No. 5½ Red Oil	8.00 – 8.50	8.50 – 9.00	8.50 – 9.00
300	No. 5½ Red Oil	9.00 – 9.50	9.25 – 9.75	9.75 –10.25
500	No. 6 Red Oil	10.00 –10.50	10.00 –10.50	11.00 –11.50
750	No. 6 Red Oil	11.50 –12.00	11.75 –12.25	11.75 –12.50

CALIFORNIA

Vis.	Color		(Viscosity at 100°F.)	
100	No. 3	9.50 –10.00	9.50 –10.00	9.50 –10.00
200	No. 3	11.50	11.50	11.50
300	No. 3	13.00	13.00	13.00
450	No. 3	15.50	15.50	15.50
550	No. 3	16.50	16.50	16.50
600	No. 3	17.00	17.00	17.00
200	No. 5	11.00	11.00	11.00
300	No. 5	12.00	12.00	12.00
400	No. 5	14.00	14.00	14.00
500	No. 5	15.00	15.00	15.00
600	No. 5	16.00	16.00	16.00
700	No. 7	18.00	18.00	18.00

CYLINDER STOCKS

**OKLAHOMA

190-200 Vis. D at 210° Brt. St.	37.00 –41.00	37.00 –41.00	37.00 –41.00
150-160 Vis. D at 210° Brt. St	36.00 –38.00	36.00 –38.00	36.00 –38.00
150-160 Vis. E 210° Brt. St	29.00 –33.00	29.00 –33.00	29.00 –33.00
600 St. Ref. Olive Green	12.00 –16.00	12.00 –16.00	12.00 –17.00
600 St. Ref. Dark Green	11.00 –15.00	11.00 –15.00	12.00 –15.00
Black Oil	5.00	5.00	5.00

PENNSYLVANIA (A. S. T. M. Tests)

600 Steam Refined, filterable	23.00 –26.00	24.00 –27.00	25.00 –27.00
650 Steam Refined	28.00 –31.00	29.00 –35.00	32.00 –35.00
600 Flash	31.00 –34.00	31.00 –37.00	37.00
625 Flash	35.00 –37.00	37.50	38.00 –40.00
600 Warren E	33.50 –34.00	33.50 –36.50	36.00 –36.50
600 Oil City E	31.00 –32.50	32.00 –32.50	32.00
600 D Filtered	37.50 –38.00	37.50 –39.00	39.00
Cold Test Stock, 40-50p. p., 140-150 vis. at 210° 540-550 flash, No. 8 color	52.00 –53.00	52.00 –53.00	52.00 –52.50
40-50 p.p., 140-150 vis. at 210°, 540-550 flash, No. 6-6½ color diluted	50.00 –51.00	50.00 –51.00	50.00 –51.00

WAX

PENNSYLVANIA (Per pound, New York)

122-124 white crude scale, a.m.p.	2.85 – 3.00	2.80 – 3.00	3.00
124-126 white crude scale, a.m.p.	3.00 – 3.125	3.00 – 3.125	3.25

OKLAHOMA

**124-126 White Crude Scale, a. m. p.	2.625– 2.75	2.50 – 2.75	2.50 – 2.625

CALIFORNIA

White crude scale, per pound, ton lots, a.m.p.	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50

DISTILLATE, GAS AND FUEL OIL

PENNSYLVANIA (For outside Pittsburgh district)

36-40 fuel oil	4.125– 4.50	4.25 – 4.50	4.375– 4.75
30-34 fuel oil	4.125	4.125– 4.25	4.25 – 4.375
28-32 fuel oil	4.125	4.125– 4.25	4.25 – 4.375

CHICAGO RESALE (F. o. b. Group 3, altho goods may originate elsewhere)

	Prices Aug. 19	Prices Aug. 12	Prices Aug. 5
38-40 straw distillate	3.375– 3.625	3.25 – 3.625	3.25 – 3.625
32-36 ordinary dark gas oil	2.50 – 2.625	2.375– 2.50	2.375– 2.50
32-36 dark zero gas oil	2.625– 2.75	2.50 – 2.75	2.50 – 2.75
32-36 straw zero gas oil	2.75 – 2.875	2.75 – 2.875	2.625– 2.875
28-30 zero fuel oil	$0.95 –$0.975	$0.95 –$0.975	$0.925–$0.95
28-30 fuel oil	$0.90 –$0.925	$0.90 –$0.925	$0.875–$0.90
24-26 fuel oil	$0.70 –$0.725	$0.675–$0.725	$0.675–$0.725
18-22 fuel oil, low sulfur	$0.575–$0.60	$0.55 –$0.60	$0.55 –$0.60
18-22 fuel oil, high sulfur	$0.525–$0.55	$0.50 –$0.55	$0.50 –$0.55

OKLAHOMA

38-40 straw distillate	3.50 – 3.75	3.50 – 3.–5	†3.50 – 3.75
36-38 straw distillate	3.375– 3.50	3.25 – 3.375	†3.125– 3.375
32-36 straw gas oil	2.50 – 2.75	2.50 – 2.75	2.50 – 2.75
32-36 dark gas oil	2.50 – 2.625	2.50 – 2.625	2.50 – 2.625
32-36 straw zero gas oil	2.625– 2.875	2.625– 2.875	2.625– 2.75
28-30 zero fuel oil	$0.95 – 0.975	$0.95 - 0.975	$0.925– 0.975
28-30 fuel oil (in bbls.)	$0.875– 0.925	$0.875– 0.925	$0.875– 0.925
26-28 fuel oil (in bbls.)	$0.80 – 0.85	$0.775– 0.85	$0.775– 0.85
24-26 fuel oil (in bbls.)	$0.75 – 0.85	$0.75 – 0.85	$0.725– 0.85
22-26 fuel oil (in bbls.)	$0.60 – 0.65	$0.60 – 0.65	$0.60 – 0.65
18-22 fuel oil (in bbls.)	$0.55 – 0.60	$0.55 – 0.60	$0.525– 0.575
‡16-20 fuel oil (in bbls.)	$0.50 – 0.55	$0.475– 0.55	$0.475– 0.55
14-16 fuel oil (in bbls.)	$0.475– 0.525	$0.475– 0.525	$0.475– 0.525

‡Gravity changed from 16-18 to 16-20, Aug. 19.

KANSAS (F. O. B. refinery Kansas destination)

38-40 straw distillate	3.50 – 3.75	3.50 – 3.75	3.50 – 3.625
36-38 straw distillate	3.375– 3.50	3.25 – 3.50	3.25 – 3.50
32-36 gas oil	2.625– 2.75	2.50 – 2.75	2.50 – 2.75
24-26 fuel oil	$0.75 – 0.775	$0.75 – 0.775	$0.75 – 0.775
18-22 fuel oil	$0.55 – 0.65	$0.575– 0.65	$0.60 – 0.70
10-14 fuel oil	$0.50 – 0.55	$0.50 – 0.55	$0.50 – 0.575

NORTH TEXAS

38-40 straw distillate	3.375	3.25 – 3.375	3.125– 3.50
32-36 gas oil, cracked	2.50	2.375– 2.50	2.375
32-36 St. reduced gas oil	2.50	2.50	2.375– 2.50
24-26 fuel oil (in bbls.)	$0.60 – 0.675	$0.60 – 0.675	$0.65 – 0.70
20-24 fuel oil	$0.60 – 0.65	$0.60 – 0.65	$0.60 – 0.70

**WEST TEXAS (F.o.b. West Texas refinery, for unrestricted shipment)

34-38 gas oil	2.375– 2.50	2.50	2.375– 2.50
30-32 gas oil	2.25 – 2.50	2.375– 2.50	2.25 – 2.375
18-22 fuel oil	$0.40 – 0.50	0.40 – 0.50	$0.375– 0.45

NORTH LOUISIANA (N. La., Ark. and Miss. destination)

32-36 gas oil, dark	2.75 – 3.00	2.75 – 3.00	2.75 – 3.00
32-36 gas oil, straw	2.875– 3.00	2.875– 3.00	2.75 – 3.00
14-16 fuel oil (in bbls.)	$0.675– 0.80	$0.65 – 0.725	$0.65 – 0.75

ARKANSAS (Ark., N. La. and Miss. destination)

32-36 gas oil, straw	3.00	3.00	3.00
32-36 gas oil	3.00	3.00	3.00
28-30 gas oil	2.50 – 2.75	2.50 – 2.75	2.50 – 2.75
14-16 fuel oil	$0.675– 0.80	$0.65 –$0.725	$0.65 – 0.70

CALIFORNIA (F. o. b. San Joaquin Valley. At San Francisco, 4c per bbl. more)

14-18 fuel oil (per bbl.)	$0.50 –$0.60	$0.50 –$0.60	$0.50 –$0.60
14-18 Bunker oil (per bbl.)	$0.70 –$0.75	$0.70 –$0.75	$0.70 –$0.75
30-34 gas oil (per bbl.)	$0.85 –$1.05	$0.85 –$1.05	$0.85 –$1.05
27 Plus Diesel oil (per bbl.)	$0.85 –$0.95	$0.85 –$0.95	$0.85 –$1.00

PETROLATUMS

PENNSYLVANIA (In barrels, carload lots, f. o. b. refinery. In tank cars ⅝c to ¾c per pound less.) Two refiners quoting.

Snow White	8.50 – 8.625	8.375– 8.50	8.375– 8.50
Lily White	7.50 – 7.625	7.375– 7.625	7.375– 7.625
Cream White	6.50 – 6.625	6.375– 6.625	6.375– 6.625
Light Amber	3.50 – 3.875	3.625	3.625
Amber	3.25 – 3.625	3.375	3.375
Red	3.00 – 3.375	3.125	3.125

PETROLEUM COKE

**OKLAHOMA

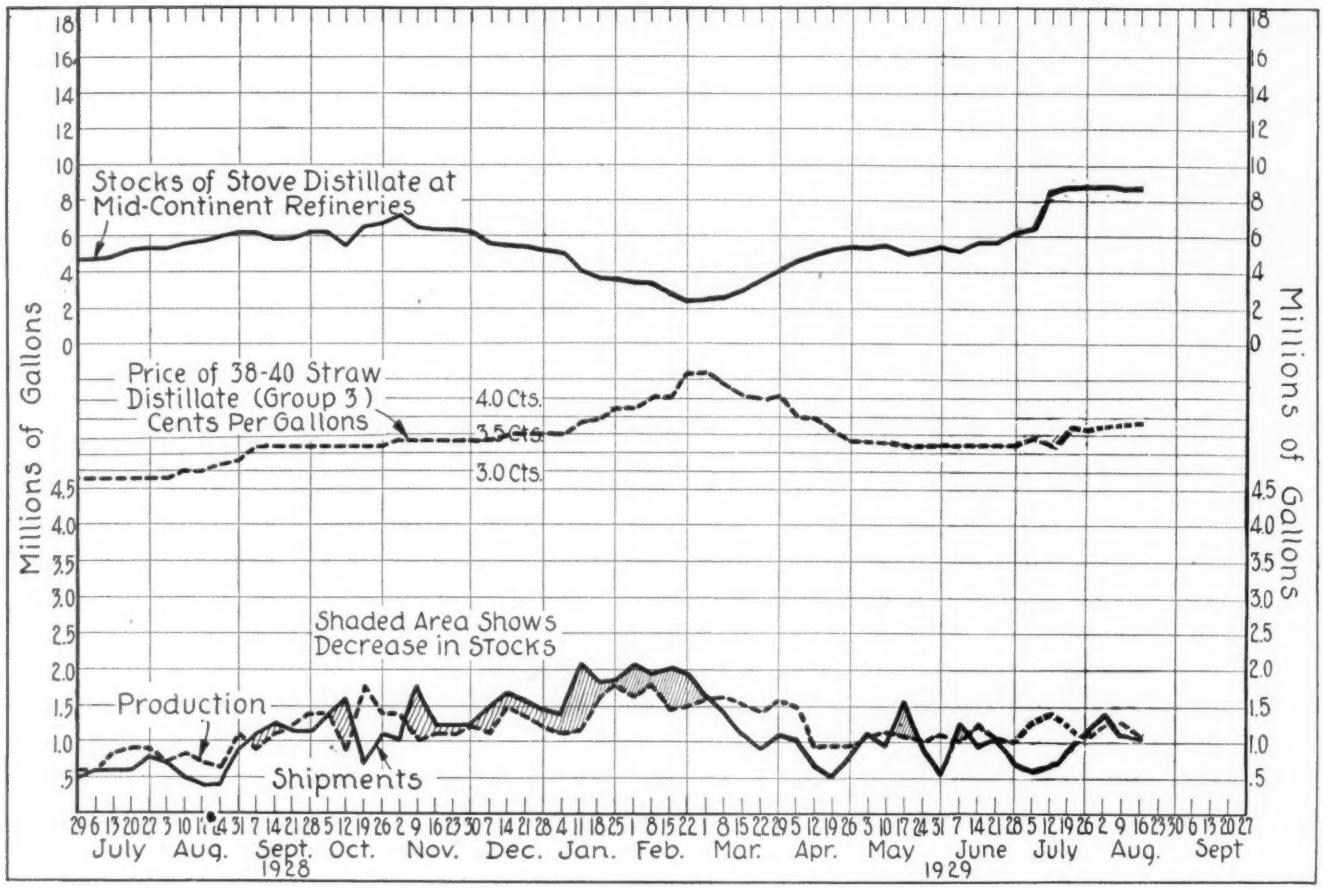
(Per ton in car lots)

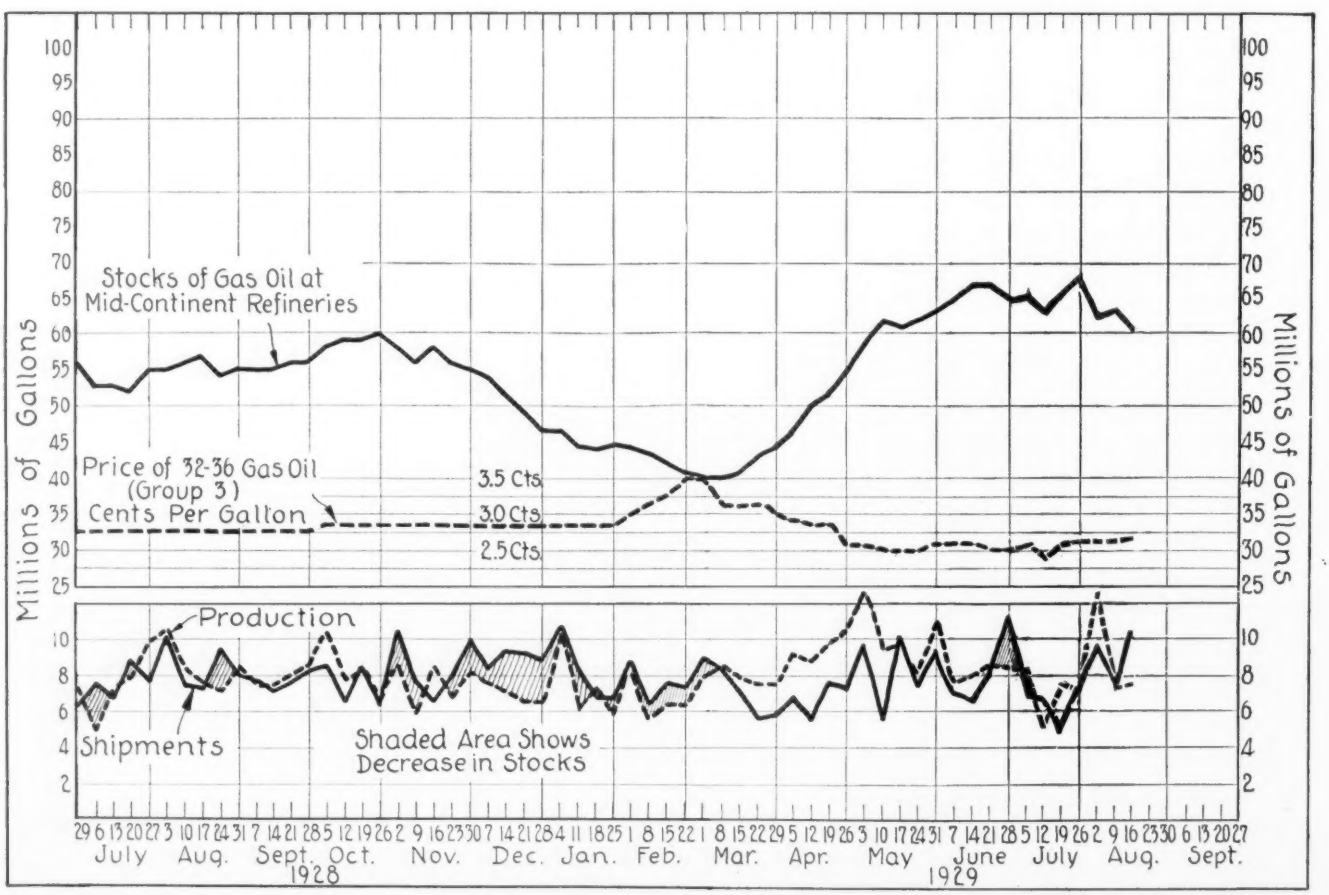
Lump	$4.50 – 5.00	$4.50 – 5.00	$4.50 –$5.00
Still run	$3.00	$3.00	$3.00
Breeze	$2.00	$2.00	$2.00

†Prices Nominal ††Only One Refiner Quoting *Quotations only **Represents both sales and quotations

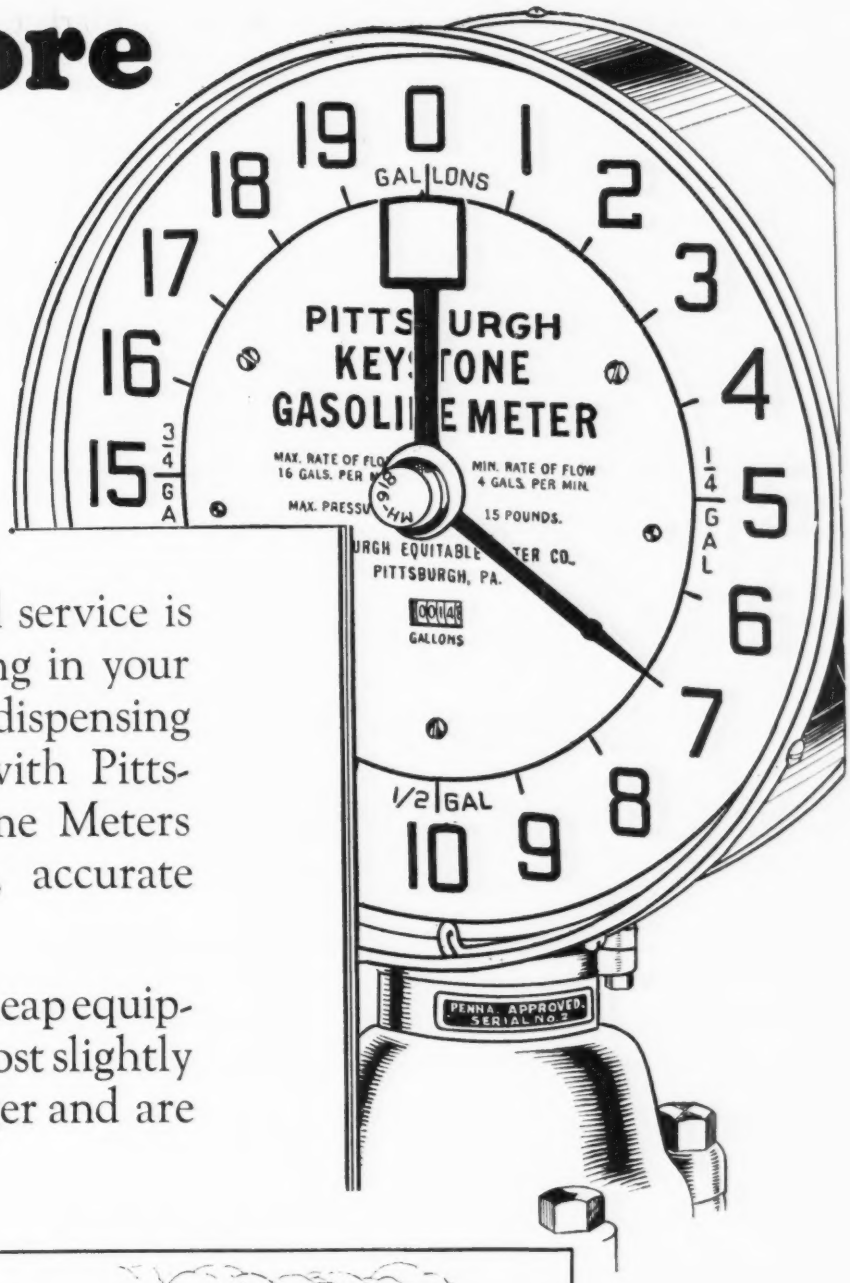
Barometer of Mid-Continent Refinery Market—Week Ending August 16

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, from Reports Made by 93 Plants to National Petroleum News


Stocks of Stove Distillate at Mid-Continent Refineries
Price of 38-40 Straw Distillate (Group 3) Cents Per Gallons
4.0 Cts.
3.5 Cts.
3.0 Cts.
Shaded Area Shows Decrease in Stocks
Production
Shipments
Millions of Gallons
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept
1928
1929

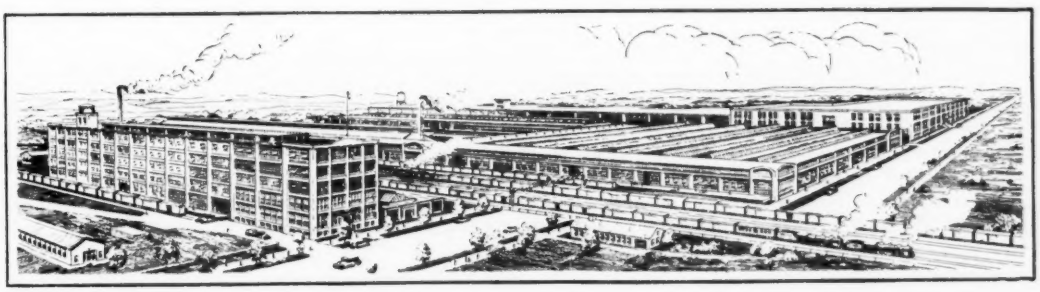

Stocks of Gas Oil at Mid-Continent Refineries
Price of 32-36 Gas Oil (Group 3) Cents Per Gallon
3.5 Cts.
3.0 Cts.
2.5 Cts.
Production
Shipments
Shaded Area Shows Decrease in Stocks
Millions of Gallons
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept.
1928
1929

Cost more *but* Worth more



Accurate, uninterrupted service is the most important thing in your business. When your dispensing systems are equipped with Pittsburgh Keystone Gasoline Meters you are assured long, accurate service.

It doesn't pay to install cheap equipment. Our meters may cost slightly more but they last longer and are never out of style.



Pittsburgh Equitable Meter Company Factories

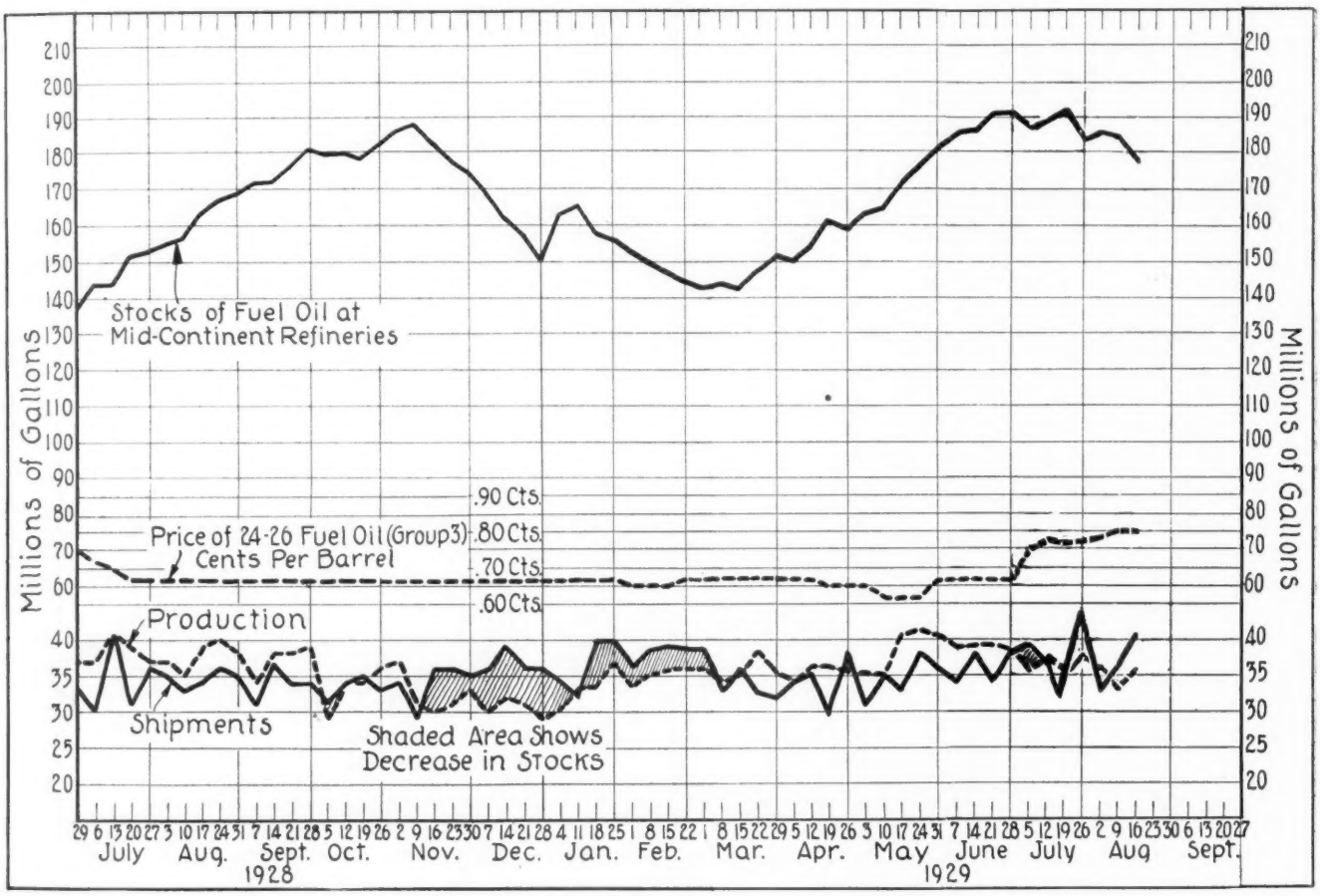
PITTSBURGH EQUITABLE METER COMPANY

MAIN OFFICE AND WORKS PITTSBURGH, PA.

NEW YORK CHICAGO COLUMBIA, S.C. LOS ANGELES DALLAS TULSA SEATTLE KANSAS CITY SALT LAKE CITY

Barometer of Mid-Continent Refinery Market—Week Ending August 16

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, from Reports Made by 93 Plants to National Petroleum News


Millions of Gallons
Millions of Gallons
Stocks of Fuel Oil at Mid-Continent Refineries
Price of 24-26 Fuel Oil (Group 3) Cents Per Barrel
.90 Cts.
.80 Cts.
.70 Cts.
.60 Cts.
Production
Shipments
Shaded Area Shows Decrease in Stocks
July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug Sept.
1928
1929

California Refinery Market

English Buyer Seeks Gasoline Cargo

Staff Special

LOS ANGELES, Aug. 15

CONSIDERABLE flurry was caused in local export circles by the presence of an English buyer who was seeking a cargo of gasoline for 6.75 cents. The high tanker rate of 40 shillings a ton was given as a reason for not accepting bids of 6⅞ and 7 cents that were reported to have been made.

Quoted export gasoline prices continued to be 7 to 7.50 cents. At the present time there are only one or two Independent refiners on the Pacific coast, capable of delivering a clean cargo, that are not in the Petroleum Export Association; but these one or two are reported to have accumulated stocks that tax the capacity of their storage.

Other export prices remained practically the same as quoted for the previous week. Four hundred thousand barrels of fuel oil was reported sold to the United States Navy for Pearl harbor, in the Hawaiian Islands at a price of 82⅜ cents delivered. This is, comparatively, a rather low figure.

Nothing of importance happened in refinery circles during the past week. Prices continued on an even trend. Natural gasoline was off a trifle with several sales reported at 8 cents.

Kerosene reached new low levels for 1929 with the report by one dealer that he could buy this product as low as 4.50 cents in 20 car lots. Other refiners and dealers asked 5 to 5.50 cents and some ask 6 cents.

Fuel oil could be purchased outside of Los Angeles Basin at a shade under the quoted price of 50 to 60 cents. A number of sales were reported. On the whole buyers preferred to pay the additional price on local oil rather than on freight rates to Los Angeles from these outside areas.

Southern California retail marketers expect the highly unstable retail situation to return to normal within the next few weeks.

New Equipment Ready Sept. 15

CASPER, Aug. 17.—White Eagle Oil & Refining Co. probably will have additional equipment at its refinery here in operation by Sept. 15. Capacity of the plant when additional equipment is in operation will be 6000 barrels daily. The present plant has a capacity of 4000 barrels. The company has contracted with Wyoming producers for approximately 1000 barrels of oil daily.

Arrington Transferred

TULSA, Aug. 15.—J. R. Arrington, who has been in charge of the Tulsa sales office, has been transferred to the St. Louis headquarters of the Pierce Petroleum Corp. as assistant director of sales. Mr. Arrington will also do some special marketing work requiring considerable traveling over the corporation's territory.

Donald MacDonald was appointed to take charge of the Tulsa sales office.

Pennsylvania Market

Prices Not Hurt By Crude Cut

CLEVELAND, Aug. 20.—Prices for refined oils in western Pennsylvania had already more than discounted the 25 cent reduction in crude oil prices posted by the Joseph Seep Purchasing Agency on Aug. 16, according to the ideas of most sellers in the Pennsylvania market.

Prices quoted Saturday for all oils except bright stock were from 0.125 cent to 2 cents under those asked early in the week but most of the reductions had taken place prior to the lowering of raw material prices.

Well informed traders believed the cut in crude would have little effect on refinery prices, except that it might have a tendency to quash the upward movement in kerosene. Prices for this commodity were being advanced by some sellers at the rate of 0.125 cent every other day until the drop in crude.

Kerosene buying slowed down somewhat the past week, but many of the trade felt it was still in relatively better position than most other oils. Several 25 car purchases from large Atlantic seaboard companies together with larger movement to middle western jobbers kept any distress stuff from the market. The better demand from middle western jobbers came as a result of prices being low in comparison with those prevailing in the Mid-Continent.

There was little change in the gasoline market. The range for U. S. Motor Saturday was 8.75 to 9.25 cents against 8.875 to 9.50 cents prevailing on Monday. More sellers, however, were quoting under 9 cents toward the end of the week. Demand from the jobbing trade was proving very disappointing to most of the trade, especially in view of extremely favorable weather conditions.

Demand for neutral oils failed to show any improvement and prices were off from 1 to 2 cents a gallon for all grades. The 150 No. 3 color grade particularly was offered in considerably larger volume at around 17.50 cents against a low of 19 cents earlier in the week.

Most manufacturers of bright stock reported being sold up for the balance of August and current prices were largely nominal. Quotations for September shipment were ranging from 52 to 53 cents on No. 8 color oil and from 50 to 51 cents on No. 6-6½ color diluted oil. Demand continued at the high rate it has maintained for several weeks past, according to reports.

Brand Your Gasoline An Individual Color

Color your anti-knock or high test gasoline an attractive shade by which the public will recognize and remember your good product.

DYKEM GASOLINE COLORS

Made to stay in gasoline; simple, safe, economical.

Several Shades of

RED GREEN BLUE
ORANGE PURPLE

Write for price and sample of shade you prefer.

DYESTUFFS & CHEMICALS, INCORPORATED
11th & Monroe Sts. **St. Louis, Mo.**

Por-Pail's —*the Pail!*

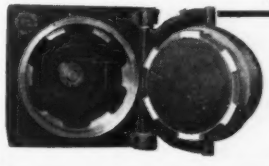
One glance at this modern container will tell you the logical package for your oils is Por-Pail. It is easy to fill—handy for your customers to use—useful long after the original contents have been emptied. Por-Pail will increase your oil sales—thus, boosting your profits, because it is preferred by your customers. *Por-Pail's the pail for you!*

WILSON & BENNETT MFG. CO.
6520
S. Menard Ave.
CHICAGO

Put Your Cash where he can't get it!

The inner door or "hold up" partition shown on the chest illustrated below will enable the filling station operator to place all money, except enough to make change, thru the slot where the thief cannot get it. As the station operator does not have the combination, the hold-up man cannot force him to surrender it.

YORK SAFE & LOCK CO.
YORK, PA.



The York Round Door Chest with "hold up" partition.

Gulf Coast Market

Foreign Buyers Withdraw Inquiries

Staff Special
NEW YORK, Aug. 17

THERE was no foreign interest shown in the Gulf export market. The inquiry that was reported a week ago, from a United Kingdom account, was taken from the market when the buyers withdrew late this last week. They were seeking approximately 70,000 barrels for shipment in September.

Contract business has been good and one refiner estimated that shipments so far this year would be greater than those at a corresponding time last year.

The price of U. S. Motor gasoline for domestic shipment from the Gulf furnished the interest in that market the past week. Quotations were higher by 0.25 cent—the market being 7.75 cents—and opinions varied as to the actual going price.

Several suppliers felt that the market was 8 cents although they did not represent the majority. Many said they had paid no particular attention to the market because it was inactive. There was no business transacted however, and the market was strictly a quoted one.

Louisiana and Arkansas refiners who can ship to the Gulf on a 0.75 cent freight rate, were reported to have moved some low priced goods to the Gulf. California gasoline can be laid down at the Gulf, according to eastern sellers, at about 7.50 cents. There has been no competition from that direction as Gulf refiners have sufficient stocks to handle orders. A part cargo of California gasoline was moved to the Gulf last week but it was intercompany business and used to stabilize a shipment of natural gasoline.

Grade C bunker oil was quoted lower but the price was no particular indication of the market which has been slow for several weeks. Most suppliers were quoting from $0.70 to $0.75 cents per barrel. Gas oil was pegged at 4 cents low, although some high sulfur goods was reported moved at 3.875 cents.

New York Domestic Market

Gasoline Price Drops for Second Week

Staff Special
NEW YORK, Aug. 17

PRICES for U. S. Motor gasoline were lower at all points on the seaboard the past week, except New England, making the second consecutive week that spot prices have been reduced.

At New York gasoline was moving from 9 to 9.50 cents, the lower figure being in line with that anticipated by sellers the week before. Baltimore, Norfolk, Charleston, Savannah and Jacksonville prices were lower by 0.25 cent. The 10 cent quotation disappeared from the Philadelphia market. One supplier continues to quote that figure but he has stated he is doing little business.

The barge price at Bayonne largely has been responsible for the low New York price, many sellers claim. Some goods has moved the past week, practically all contract, as much as 0.50 cent below the low of the spot tank car market. To cope with this competition the tank car seller had to reduce his price. In some instances spot barges have moved from 0.125 to 0.25 cent below the spot market. Competition has been keen for this class of business and one seller stated that, in referring to a New England account, he probably would have to sacrifice in order to hold the business although he had been selling in barges at the same figure he did in tank cars.

South of Baltimore the spot movement was reported thin. Most of the gasoline sold in those districts moves on contract. One large seller continues to sell goods at those southern points at 9.75 cents but he said he had been losing business to other companies at 9.50 cents.

The market was well established at Boston and Providence at 10.25 delivered, as the low price. One company quoted a fraction under 11 cents into those two points. The spot movement has picked up there, a refiner reported.

Some jobbers in those districts have contracts 0.05 cents below the tank wagon price which is 16 cents, making the price to their plant 11 cents. They also have the option of buying on the spot market, which they have been doing for the past two weeks since the price has been under 11 cents.

One seller at Boston reported he was buying kerosene from western Pennsylvania instead of terminals near him. He can buy 45 water white kerosene at a cost about the same as 42-44 water white in the Boston district.

California gasoline has been moving only fair. One buyer said that 6 to 6.25 cents could be done on the west coast which would figure from 8.50 to 8.75 cents at New York. At New York the price has narrowed to 9.50 cents.

Other commodities were unchanged in price. While it is a little early for the burning oil season, several suppliers said there was a better tone to the market.

Tells Customers Where to Drive

CLEVELAND, Aug. 17.—Sunday afternoon auto drives of Cleveland families will not be marred by the vexing question of where to go.

The question can be settled by consulting the booklet of the Pocahontas Oil Co. suggesting 20 drives. Last year, when the books were issued first, 25,000 were distributed at stations.

The booklet has 28 pages and cover, 4½ by 7½ inches. Pocahontas has advertisements on the inside covers and on the last page; these tell of its lubrication service and give a list of station locations. At the bottom of each page is a line of advertising.

A page or two is given to each drive. A map shows the various routes, and there is a picture of a point of interest. Detailed routes and a brief description of the drive are given. Most of the drives can be made in an afternoon; others are about 150 miles for the round trip. Each drive leads to a place of beauty or of historic interest. Pocahontas stations along the routes are marked on the maps.

The booklet is printed in green and black and has a cover depicting a drive through a woods. The title is "Little Tips on Nearby Trips Along the Pocahontas Trail."

Wax Market

White Crude Scale Active

NEW YORK, Aug. 17.—The better tone in the wax market, first noticed about three weeks ago, continued during the week ended Aug. 17. Prices on all grades were unchanged.

Suppliers report that more inquiries were received for white crude scale and that bids continued to be nearer the quoted price of 3 cents.

Some buying of low melting point fully refined goods was reported. The sales were for export and were small, it was reported. Some of the business went at 4.125 cents, although 4 cents can be done.

Early in the week a sale of 150 tons of white crude scale was made at 2.80 cents, but later it was believed nothing could be bought under 3 cents. Yellow crude scale was in a better position with more sellers leaning toward the higher range of 2.875 cents. Quotations were still being made by a few sellers at 2.75 cents.

South American buyers, who are large purchasers of yellow scale, were more interested in the market, one seller reported. He had received numerous inquiries for small lots of goods for over the next 30 to 45 days. The buyers sought amounts from 50 to 75 tons.

Gulf Red Oils Lower

HOUSTON, Aug. 19.—Some Gulf Coastal red oils declined from 0.25 to 0.50 cent during the past week, but there were no revisions on other oils. Manufacturers report good movement of the various grades to domestic jobbers, considering the in-between season from the selling viewpoint. Accumulations of some grades, however, have recently weakened the prices to levels now prevailing.

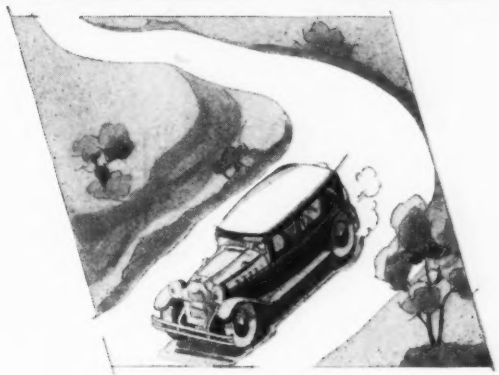
Correction

Prices of U. S. Motor gasoline at Boston and Providence in the Eastern Domestic Market as published on page 130 of the Aug. 14 issue of NATIONAL PETROLEUM NEWS were in error at 10.25 to 10.75 cents, as of Aug. 12. Correct prices on Aug. 12 at both points were 10.25 to 10.50 cents, as published in this issue in the complete seaboard market.

* * *

Also, price of Oklahoma 38-40 straw distillate on Aug. 12 in the refinery market table, page 123, should have been 3.50 to 3.75 cents, instead of 3.50 to 3.625 cents as published in the Aug. 14 issue.

MILEAGE



MILEAGE! There, in one word, is summed-up the super-lubricating qualities of Motul—the *superiority* of this 100% Pure Pennsylvania Oil, *Swan-Finch-refined* at Warren, Pennsylvania!

Motul has greater *cohesiveness* and greater *adhesiveness* than ordinary oils. It is *highly viscous* and practically *non-volatile*. Thus Motul not only makes a more effective piston seal—not only reduces dilution and contamination in the crank case—it *stands up* under *greater heat* and for *longer time; gives perfect lubrication for more miles!*

More—and *better*—miles of lubrication have given Motul an *ever-increasing* popularity. Distributors are invited to write regarding open territory for this 100% Pure Pennsylvania Oil.

Guaranteed 100% PURE PENNSYLVANIA OIL Permit No. 26

SWAN-FINCH REFINING CO.
205 E. 42nd Street, New York

SWAN FINCH

MOTUL

100% Pennsylvania Oil

Complete Seaboard Market

(Export Markets for whole year given in OIL PRICE HANDBOOK. Each volume carries refinery, tank wagon, crude and export markets—complete for the whole year)

Eastern Domestic Market

(Prices for tank car lots, f. o. b. refinery or seaboard terminal, representing majority of quotations.)

U. S. MOTOR GASOLINE	Aug. 19	Aug. 12	Aug. 5
New York harbor	9.00 – 9.50	9.25– 9.50	9.50 –10.00
Portland district	**10.75–11.00	**10.75–11.00	**11.00–11.50
Boston district	**10.25–10.50	**10.25–10.75	**10.50–11.00
Providence district	**10.25–10.50	**10.25–10.75	**10.50–11.00
Philadelphia district	9.50	9.50–10.00	9.50 –10.00
Baltimore district	9.50 – 9.75	9.75	10.00
Norfolk district	9.50 – 9.75	9.75	10.00
Charleston district	9.50 – 9.75	9.75	10.00
Savannah district	9.50 – 9.75	9.75	10.00
Jacksonville district	9.50 – 9.75	9.75	10.00
CALIFORNIA, U. S. MOTOR GASOLINE			
New York habor	††9.50	9.50 –10.00	10.00
Philadelphia district	9.50	9.50	9.50 – 9.75
Baltimore district	9.75	9.50 – 9.75	10.00
WATER WHITE KEROSENE			
New York harbor	7.75	7.75	7.75 – 8.00
Philadelphia district	7.75	7.75	7.75 – 8.00
Baltimore district	7.75 – 8.00	8.00	8.00
Gas OIL: 28-34 Gravity			
New York harbor	4.75	4.75	4.75
Boston district	4.75	4.75	4.75
FURNACE OIL: 36-40 Gravity			
New York habor	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
Boston district	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
GRADE C BUNKER OIL†			
New York harbor	$1.05	$1.05	$1.05
Boston district	$1.05	$1.05	$1.05
DIESEL OIL			
New York harbor	$2.00 –$2.10	$2.00 –$2.10	$2.00 –$2.10
MEDICINAL OILS, RUSSIAN			
.885-890 s.g. 320-330 vis.	$0.82 – 0.97	$0.82 – 0.97	$0.75 – 0.80
.870-875 s.g. 145-155 vis.	$0.74 – 0.89	$0.74 – 0.89	$0.65 – 0.70

Note: Above gasoline prices do not include inspection tax levied in some states

*Minimum delivered. **Delivered prices. †Lighterage 5c per bbl. additional ††Nominal.

New York Export Market

(Lubricating oils are per gal. in bbls.)

	Aug. 19	Aug. 12	Aug. 5
CYLINDER OILS (Pennsylvania Products)			
Bright stock, dark	57.00 –59.00	57.00	57.00 –59.00
600 D filtered	44.00 –46.00	46.00 –47.00	45.00
600 Warren E filtered	42.00	42.00 –43.00	42.00 –43.00
600 s.r. unfiltered	30.00 –33.00	30.00 –33.00	33.00 –35.00
650 s.r. unfiltered	36.00 –39.00	36.00 –39.00	39.00 –42.00
600 flash, s.r.	40.00 –43.00	41.00 –43.00	45.00
630 flash, s.r.	45.00 –47.00	45.00 –46.00	46.00 –48.00
RED ENGINE OILS (Vis. 100°)			
300 vis. No. 6½ color	20.00 –21.00	20.00 –21.00	20.00 –21.00
250 vis. No. 6 color	18.00 –20.00	18.00 –20.00	18.00 –20.00
200 vis. No. 6 color	16.00 –17.00	16.00 –17.00	16.00 –17.00
PALE ENGINE OILS (Vis. 100°)			
230 vis. No. 3¾ color	20.00 –21.00	20.00 –21.00	20.00 –21.00
180 vis. No. 3¼ color	17.00	17.00	17.00
100 vis. No. 2¼ color	16.00	16.00	16.00
MOTOR OILS (Vis. 100°)			
600 vis. No. 7 color	33.00 –34.00	33.00 –34.00	33.00 –34.00
500 vis. No. 6½ color	31.00	31.00	31.00
400 vis. No. 7¼ color	30.00	30.00	30.00
300 vis. No. 6 color	23.00 –25.00	23.00 –25.00	23.00 –25.00
200 vis. No. 6 color	20.00 –22.00	20.00 –22.00	20.00 –22.00
MEDICINAL OILS			
.875-880 s.g.	$0.76 – 0.91	$0.76 – 0.91	$0.80
.860-.865 s.g.	$0.58 – 0.73	$0.58 – 0.73	$0.70
WAXES (In cents per pound, f.a.s. carload lots)			
WHITE CRUDE SCALE (In barrels)			
122-124 A.m.p.	3.00	3.00	3.00
124-126 A.m.p.	3.00	3.00	3.00
FULLY REFINED (In burlap bags)			
123-125 A.m.p. Phila.	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
125-127 A.m.p.	4.00 – 4.25	4.00 – 4.25	4.00 – 4.25
128-130 A.m.p.	4.50	4.50	4.50
130-132 A.m.p.	5.25 – 5.50	5.25 – 5.50	5.25 – 5.50
133-135 A.m.p.	6.00 – 6.25	6.00 6.25	6.00 – 6.25
135-137 A.m.p.	6.25 – 6.50	6.25 – 6.50	6.25 – 6.50
YELLOW CRUDE SCALE			
124-126 A.m.p.	2.75 – 2.875	2.75 – 2.875	2.75 – 2.875

Gulf Export Market

(Prices are f. o. b. Gulf oil terminals in Texas and Louisiana, shipments of 20,000 bbls. or more unless otherwise noted and for export shipment only).

GASOLINE	Aug. 19	Aug. 12	Aug. 5
U. S. Motor	8.50	8.50	8.50
60-62, 400 e.p.	9.50	9.50	9.50
61-63, 390 e.p.	9.75	9.75	9.75
64-66, 375 e.p.	10.00	10.00	10.00
U. S. Motor, cases (cargoes)	$1.85	$1.85	$1.85
64-66, cases (cargoes)	$2.00	$2.00	$2.00
KEROSENE			
44 water white	8.00	8.00	8.00
41-43 prime white	7.00	7.00	7.00
Water white, cases (cargoes)	$1.80	$1.80	$1.80
Prime white, cases (cargoes)	$1.70	$1.70	$1.70
DOMESTIC GAS & BUNKER OILS			
*26-30 translucent gas oil	4.00	4.00	4.00
*30 plus translucent gas oil	4.00 – 4.125	4.00 – 4.125	4.00 – 4.125
Grade C bunker oil	$0.90 –$0.95	$0.90 –$0.95	$0.90 –$0.95
Grade C bunker oil, cargoes	$0.70 –$0.75	$0.70 –$0.80	$0.70 –$0.80
*Less than ½ of 1% sulphur.			
MEXICAN CRUDE AND BUNKER OILS (F. O. B. Steamer, Tampico)			
Heavy Panuco crude taxes to be paid	$0.60 –$0.65	$0.60 –$0.65	$0.60 –$0.65
Grade C bunker oil for bunkering purposes, taxes paid	$0.90 –$0.95	$0.90 –$0.95	$0.90 –$0.95
SOUTH TEXAS LUBRICATING OILS, (Viscosity at 100° F. (cold test 0) (Tanker, f. o. b. Houston)			
100 vis. No. 2 unfiltered pale	6.50	7.00	7.00
200 vis. No. 3 unfiltered pale	8.00 – 9.00	8.50 – 9.50	8.50 – 9.50
300 vis. No. 3 unfiltered pale	9.50 –10.00	9.50 –10.50	9.50 –10.50
500 vis. No 3½ unfiltered pale	11.00 –11.50	11.00 –12.00	11.00 –12.00
750 vis. No. 4 unfiltered pale	12.50 –13.00	13.50 –14.00	13.50 –14.00
1200 vis. No. 5 unfiltered pale	16.00 –16.50	16.50 –17.00	16.50 –17.00
200 vis. No. 5-6 red oil	7.75 – 8.00	8.00 – 8.50	8.00 – 8.50
300 vis. No. 5-6 red oil	8.25 – 8.50	8.50 – 9.00	8.50 – 9.00
500 vis. No. 5-6 red oil	9.75 –10.00	10.00 –10.50	10.00 –10.50
750 vis. No. 5-6 red oil	11.75 –12.00	12.00 –12.50	12.00 –12.50
1200 vis. No. 5-6 red oil	16.00 –16.50	16.50 –17.00	16.50 –17.00

Gulf Domestic Market

(Prices are f.o.b. Gulf oil terminals in Texas and Louisiana in shipments of 20,000 bbls. or more, representing sellers' opinions, for domestic shipment only).

	Aug. 19	Aug. 12	Aug. 5
U. S. Motor gasoline	7.75	7.50	8.00
41-43 w.w. kerosene	6.50	6.50	6.75 – 7.00
*26-32 translucent gas oil	4.00	4.00	4.00
*Less than ½ of 1% sulfur.			

Pacific Export Market

(Quotations are at seaboard, Los Angeles, in cargo lots, cents per gallon, except where otherwise noted.)

	Aug. 19	Aug. 12	Aug. 5
Gasoline, U. S. Motor, 53-55 Gravity	7.00 – 7.50	7.00 – 7.50	7.00 – 7.50
Gasoline, U. S. Motor-blends and special cuts	7.50 –10.00	7.50 –10.00	7.50 –10.00
Gas Oil, 30-34, per barrel	$0.95 –$1.05	$0.95 –$1.05	$0.95 –$1.05
Diesel Oil, 27 plus, per barrel	$0.875–$1.00	$0.875–$1.00	$0.875–$1.00
Bunker oil, 14-18, per barrel	$0.70 –$0.85	$0.70 –$0.85	$0.70 –$0.85
Fuel oil, 14-18 per barrel	$0.60 –$0.85	$0.60 –$0.85	$0.60 –$0.85
Kerosene, 38-40 w.w., 125-150 flash, per gal.	5.75 – 6.25	5.75 – 6.25	5.75 – 6.25
Cased Goods			
Gasoline, U. S. Motor	$1.75 –$1.85	$1.75 –$1.85	$1.75 –$1.85
Kerosene, 38-40 w.w., 125, 150 flash	$1.45 –$1.50	$1.45 –$1.50	$1.45 –$1.50

Tanker Rates

(Approximate tanker freight rates to Continental ports, in shillings per ton of 2240 pounds, British sterling; to American ports, cents per barrel.)

	Aug. 19	
	Crude &/or Fuel	Refined Oil &/or Spirits
Calif. to U. K. or Continental ports*	35	38-40
Gulf to U. K. or Continental ports*	23	22/6
North Atlantic to U. K. or Continental ports*	20	20
Calif. to North Atlantic ports (not E. of N. Y.)	$0.90-$1.00	$0.95-$1.00
Gulf to North Atlantic ports (not E. of N. Y.)**	38-40	40-42

*Continental ports in the range between Bordeaux and Hamburg, both inclusive.

**Venezuela loading same rate. For Tampico 5c per bbl. additional.

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Giant or Balloon	25 to box
1 box (either size)	$2.50
6 boxes (either size)	$12.50

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Address.....

Tank Wagon Service Station Markets for Gasoline and Kerosene

(OIL PRICE HANDBOOK has t.w. and s.s. markets for a whole year, arranged for quick reference)

These Prices in Effect Aug. 19, 1929, as Posted by Principal Marketing Companies

S.O. NEW JERSEY TERRITORY

	Gasoline				Oil
			Total		
	T.W.	Tax	T.W.	S.S.	T.W
Atlantic City, N.J.	12	2	14	18	13
Newark, N. J.	14	2	16	20	13
Annapolis, Md.	14	4	18	22	13
Baltimore, Md.	14	4	18	22	12
Cumberland, Md.	14	4	18	22	13
Washington, D. C.	14	2	16	20	12
Danville, Va.	14	5	19	23	12
Norfolk, Va.	14	5	19	23	13
Richmond, Va.	14	5	19	23	13
Roanoke, Va.	13	5	18	21	13
Petersburg, Va.	14	5	19	23	13
Charleston, W. Va.	14	4	18	22	13
Keyser, W. Va.	14	4	18	22	13
Parkersburg, W. Va.	14	4	18	22	13
Wheeling, W. Va.	14	4	18	22	13
Charlotte, N. C.	14	5	19	23	13
Hickory, N. C.	14	5	19	23	13
Mt. Airy, N. C.	14	5	19	23	13
Salisbury, N. C.	12	5	17	20	13
Charleston, S. C.	14	6	20	24	13
Columbia, S. C.	14	6	20	24	13

CONTINENTAL OIL

Denver, Colo.	14	4	18	21	15.5
Pueblo, Colo.	14	4	18	21	15.5
Grand Junc., Colo.	18.5	4	22.5	25.5	19
Casper, Wyo.	17	4	21	24	14
Cheyenne, Wyo.	18	4	22	25	15.5
Butte, Mont.	20.5	5	25.5	28.5	20
Helena, Mont.	20.5	5	25.5	28.5	20
Salt Lake City, Utah.	18.5	3½	22	25	17
Boise, Ida.	20.5	4	24.5	27.5	19
Twin Falls, Ida.	20.5	4	24.5	28.5	19
Albuquerque, N. M.	16	5	21	24	17

S. O. CALIFORNIA

Phoenix, Ariz.	14	4	18	22	20.5
Los Angeles, Cal.	16.5	3	19.5	22.5	15.5
Fresno, Cal.	17	3	20	23	17
San Francisco, Cal.	17	3	20	23	15.5
Reno, Nev.	21	4	25	28	19
Portland, Ore.	17.5	3	20.5	23.5	16.5
Seattle, Wash.	17.5	3	20.5	23.5	16.5
Spokane, Wash.	21.5	3	24.5	27.5	20.5
Tacoma, Wash.	17.5	3	20.5	23.5	16.5

Note: 4c per gal. discount to dealers off t.w. price of gasoline to customers taking tank truck delivery, thru S. O. California territory, except 1c discount at Phoenix to dealers only.

S. O. LOUISIANA

Little Rock, Ark.	14	5	19	23	13
Alexandria, La.	‡14	4	‡18	‡22	†16
Baton Rouge, La.	12	4	16	20	†14.5
Lake Charles, La.	††14.5	4	††18.5	††22.5	†16
New Orleans, La.	*12.5	4	*16.5	20.5	†16
Shreveport, La.	13.5	4	17.5	21.5	†15
Lafayette, La.	**14	4	**18	**22	†14
Bristol, Tenn.	14	5	19	23	14
Chattanooga, Tenn.	13	5	18	20	16
Knoxville, Tenn.	15	5	20	24	16
Nashville, Tenn.	14	5	19	23	16
Memphis, Tenn.	13	5	18	22	12.5

*New Orleans gasoline prices include 1c parish tax in addition to 4c state tax, and kerosene prices include 1c state tax and 1c parish tax.

†Kerosene price in Louisiana includes 1c state tax.

**Lafayette gasoline prices include 1c parish tax in addition to 4c state tax.

††Lake Charles gasoline prices include 1c parishtax.

‡Alexandria gasoline prices include 1c Rapides Parish tax.

S. O. KENTUCKY

Ashland, Ky.	13	5	18	19	15.5
Catlettsburg, Ky.	13	5	18	19	15.5
Lexington, Ky.	15	5	20	22	15.5
Louisville, Ky.	16	5	21	23	15
Covington, Ky.	16	5	21	22	15.5
Clarksdale, Miss.	15	5	20	22	12.5
Gulfport, Miss.††	17.5	5	22.5	24.5	14
Jackson, Miss.	16	5	21	23	13
Natchez, Miss.	15.5	5	20.5	22.5	14
Vicksburg, Miss.	15.5	5	20.5	22.5	14
Birmingham, Ala.	16	4	20	22	15
Mobile, Ala.‡	16	4	20	22	15
Montgomery, Ala.*	17	4	21	23	16.5
Atlanta, Ga.	16	4	20	22	†16.5
Augusta, Ga.	16	4	20	22	†15.5
Macon, Ga.	17	4	21	23	†16.5
Savannah, Ga.	16	4	20	22	†15.5
Jacksonville, Fla.	16	6	22	24	14.5
Miami, Fla.	17	6	23	25	15.5
Tampa, Fla.	16	6	22	24	14.5
Pensacola, Fla.**	17	6	23	25	14.5

Note: Net price to dealers is 2c under posted t.w. price thru S. O. Kentucky territory.

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included. ‡Mobile gasoline prices include 1c city tax.

†Georgia kerosene prices include 1c state tax.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include Harrison county privilege tax of 2c.

Latest Changes in Tank Wagon Prices

S. O. Louisiana—T.w. and s.s. gasoline cut 2c, Chattanooga, **Aug. 15**, and s.s. only cut 2c, **Aug. 16**, bringing new t.w. to 18c, and s.s. to 20c, including 5c tax.

Magnolia Petroleum—T.w. cut 1c and s.s. cut 3c, Fort Smith, to 15c and 17c respectively, including 4c Oklahoma tax, **Aug. 9.**

T.w. and s.s. cut 1c, Little Rock, to 19c and 23c respectively, including 5c tax, **July 29.**

S. O. Ohio—T.w. cut 1c and s.s. cut 2c, both to 18c, Greenville, **Aug. 6.**

T.w. up 1c, s.s. up 2c, Wayne county, back to state-wide schedule of 19c and 20c respectively, **Aug. 16.**

S. O. Kentucky—T.w. price only of gasoline cut 1c, Lexington, to 20c, including 5c tax, **Aug. 3.** Prices in all subsequent issues of NATIONAL PETROLEUM NEWS should have shown that price instead of 21c. S.s. unchanged at 22c.

S. O. NEBRASKA

	Gasoline				Oil
			Total		
	T.W.	Tax	T.W.	S.S.	T.W.
Omaha, Neb.	16.25	4	20.25	22.25	13.25
McCook	17.75	4	21.75	23.75	14.75
Norfolk	16.75	4	20.75	22.75	13.75
North Platte	17.75	4	21.75	23.75	14.50
Scottsbluff	17.75	4	21.75	23.75	14.25

S. O. INDIANA

Chicago, Ill.	16	3	19	20	13
Decatur, Ill.	16.2	3	19.2	20.2	13.1
E. St. Louis, Ill.	15.4	3	18.4	17.4	12.2
Joliet, Ill.	16.4	3	19.4	20.4	13.3
Peoria, Ill.	16.2	3	19.2	20.2	13.1
Quincy, Ill.	16.2	3	19.2	20.2	12.9
Indianapolis, Ind.	16.2	4	20.2	21.2	14.2
Evansville, Ind.	16	4	20	21	14
South Bend, Ind.	16.4	4	20.4	21.4	14.4
Detroit, Mich.	16.8	3	19.8	20.8	14.7
Grand Rapids, Mich.	16.7	3	19.7	20.7	14.6
Saginaw, Mich.	16.9	3	19.9	20.9	14.8
Green Bay, Wisc.	16.6	2	18.6	19.6	13.4
Madison, Wisc.	16.3	2	18.3	17.3	13.1
Milwaukee, Wisc.	16.1	2	18.1	19.1	12.9
La Crosse, Wisc.	17.2	2	19.2	20.2	14
Minneapolis, Minn.	17.2	3	20.2	21.2	13.9
Duluth, Minn.	17.5	3	20.5	21.5	13.9
Mankato, Minn.	17.1	3	20.1	21.1	13.7
Des Moines, Ia.	16.5	3	19.5	20.5	13.3
Davenport, Ia.	16.5	3	19.5	20.5	13.3
Sioux City, Ia.	16.1	3	19.1	20.1	12.9
Mason City, Ia.	16.5	3	19.5	20.5	13.3
St. Louis, Mo.	*15.9	2	17.9	18.9	12.3
Kansas City, Mo.	†16.9	2	18.9	19.9	11.6
St. Joseph, Mo.	†16.5	2	18.5	19.5	12.2
Fargo, N. D.	18.9	3	21.9	22.9	15.9
Grand Forks, N. D.	19.2	3	22.2	23.2	16.2
Minot, N. D.	18.9	3	21.9	22.9	15.9
Pierre, S. D.	17	4	21	22	14.4
Huron, S. D.	17.3	4	21.3	22.3	14.7
Wichita, Kans.	14.8	3	17.8	18.8	11.8
Bartlesville, Okla.	14.5	4	18.5	19.5	11.5

S. O. Indiana's quantity contract price schedule thru territory except Chicago on tank truck deliveries of gasoline, figured from the service station price, is 2c for 500 gals. or more a month; 2½c for 2000 gals. or more a month and 3c for 6000 gals. or more a month.

In Chicago and vicinity, these discounts apply Over 500 gals. per month, 2c per gal. off service station price; over 1,000 gals. per month, 4c per gal. off service station price.

*Includes city tax of ½c.

†Includes city tax of 1c.

S. O. OHIO

	Gasoline				Oil
			Total		
	T.W.	Tax	T.W.	S.S.	T.W.
Ohio state-wide	15	4	19	20	13
Belmont, Columbiana, Jackson, Lorain, Mahoning, Meigs, Noble, Washington, Montgomery and Jefferson Counties, and *13 Competitive Points	14	4	18	18	13
At †6 Competitive Points	14	4	18	19	13
Bryan and Findlay	13	4	17	17	13

Note:—Discount to dealers and commercial accounts generally thru Ohio is 2c per gal. off t.w. price. Exceptions: 3c off in the 10 counties and 13 competitive points quoted on second line above and at Findlay, except that commercial accounts in Belmont, Columbiana, Jackson, Mahoning, Montgomery and Jefferson counties get 1c off, dealers get 3c.

†These 6 points are: Hicksville, Celina, Arlington Mortimer, Mendon, and Nevada.

*These 13 points are: Arcadia, Perrysburg, Fostoria, Wapakoneta, Urbana, Jamestown, Marion, St. Paris, Ada, Lima, Hamilton, Greenville, and Piqua.

MAGNOLIA PETROLEUM

Muskogee, Okla.	13	4	17	20	13
Oklahoma City	13	4	17	20	10
Tulsa, Okla.	11	4	15	19	10
Fort Smith, Ark.†	11	†4	15	17	12
Little Rock, Ark.	14	5	19	23	13
Texarkana, Ark.*	13	*4	17	19	12
Dallas, Tex.	13	4	17	21	13
Fort Worth, Tex.	13	4	17	20	12
Houston, Tex.	13	4	17	21	13
San Antonio, Tex.	13	4	17	21	11
El Paso, Tex.	13	4	17	21	16

*Within city of Texarkana, the state tax on gasoline is 4c per gal. conforming with the Texas state tax. In this district outside of the city the 5c Arkansas tax applies.

†Within city of Fort Smith, Oklahoma tax of 4c applies. In this district outside of the city, the 5c Arkansas tax applies.

S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

New York City	17	2	19	*21	15
Albany, N. Y.	16	2	18	20	15
Buffalo, N. Y.	16	2	18	20	14
Rochester, N. Y.	16	2	18	20	13
Syracuse, N. Y.	16	2	18	20	12
Boston, Mass.	16	2	18	20	15
Augusta, Me.	16	4	20	21	15
Manchester, N. H.	16	4	20	22	15
Burlington, Vt.	16	4	20	22	13

Note: S. O. New York allows concessions of 1 to 2c per gal. to dealers under posted tank wagon prices.

*The Standard of New York does not operate stations in New York City. This figure is the retail price of a principal station operator in New York selling Socony gasoline.

ATLANTIC REFINING

Pittsburgh, Pa.	17	*	17	23	14
Philadelphia, Pa.	17	*	17	23	14
Allentown, Pa.	17	*	17	23	14
Erie, Pa.	13	*	13	17	14
Scranton, Pa.	17	*	17	23	14
Altoona, Pa.	17	*	17	23	14
Williamsport, Pa.	16	*	16	20	14
Dover, Del.	17	3	20	22	14
Wilmington, Del.	17	3	20	22	14
Boston, Mass.	16	2	18	20	15
Springfield, Mass.	16	2	18	20	15
Worcester, Mass.	16	2	18	20	15
Fall River, Mass.	16	2	18	20	15
Providence, R. I.	15	2	17	20	15
Hartford, Conn.	16	2	18	20	14
New Haven, Conn.	16	2	18	20	15
Atlantic City, N. J.	16	2	18	20	13
Camden, N. J.	16	2	18	20	13
Trenton, N. J.	16	2	18	20	13

Above prices include these inspection fees on both gasoline and kerosene, per gallon: Alabama, 1/40c on gasoline, 1/2c kerosene; Arkansas, 1/20c on both; Florida, 1/8c on both; Georgia, 1/10c on both; Indiana, 4/25c to 1/2c on both; Kansas, 3/50c on both; Louisiana, 1/32c on gasoline; Minnesota, 3/50c on both; Missouri, 3/10c to 1/2c on both; Nebraska, 3/50c to ½c on both; North Carolina, 1/4c on both; North Dakota, 1/20c on both; Oklahoma, 4/25c on both; South Carolina, 1/8c on both; South Dakota, 1/10c on both; Tennessee, 2/5c on gasoline and 1/2c to 4/5c on kerosene; Wisconsin, 3/50c on both.

Kerosene inspection fees only, per gallon; Iowa, 7/100c; Michigan 1/5c to 4/5c per gal.

In Illinois, cities and villages have the power to appoint oil inspectors and fix inspection fees which is done in some instances. In some cases in the above state or other states there are local inspection fees.

Tank Wagon, Service Station Markets for Gasoline and Kerosene

Prices in Effect Aug. 19, 1929

ATLANTIC REFINING

	Gasoline Total T.W.	Tax	T.W.	S.S.	Oil T.W.
Annapolis, Md.	16	4	20	22	13
Baltimore, Md.	16	4	20	22	13
Hagerstown, Md.	16	4	20	22	13
Richmond Va.	16	5	21	23	13
Wilmington, N. C.	16	5	21	23	13
Brunswick, Ga.	17	4	21	23	**16.5
Jacksonvlle, Fla.	17	6	23	25	14.5

Note: 2c per gal. discount off t.w. price to dealers thru territory; also 2c off to commercial accounts under contract for one year.

*4-cent state tax is collected by retail dealer and paid by him directly to state.

**Georgia kerosene prices include 1c state tax

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

	Oleum Spirits	V.M.&P. Naphtha	Cleaner Naphtha
Chicago	15.7	17.2	19
Detroit	17.4	18.9	20.7
Kansas City	†15.9	†17.4	†19.2
Milwaukee	16.4	*19.9	*21.7
Minneapolis	*19.7	*21.2	*23
St. Louis	15.6	17.1	18.9
New York		17	23
Boston		19	23

*Includes 2c state tax. †Includes 1c city tax.

Petroleum Spirits

Tank Cars (Solvent)

New York refineries	12.00
Philadelphia refineries	12.00

Tank Wagon or Steel Barrels

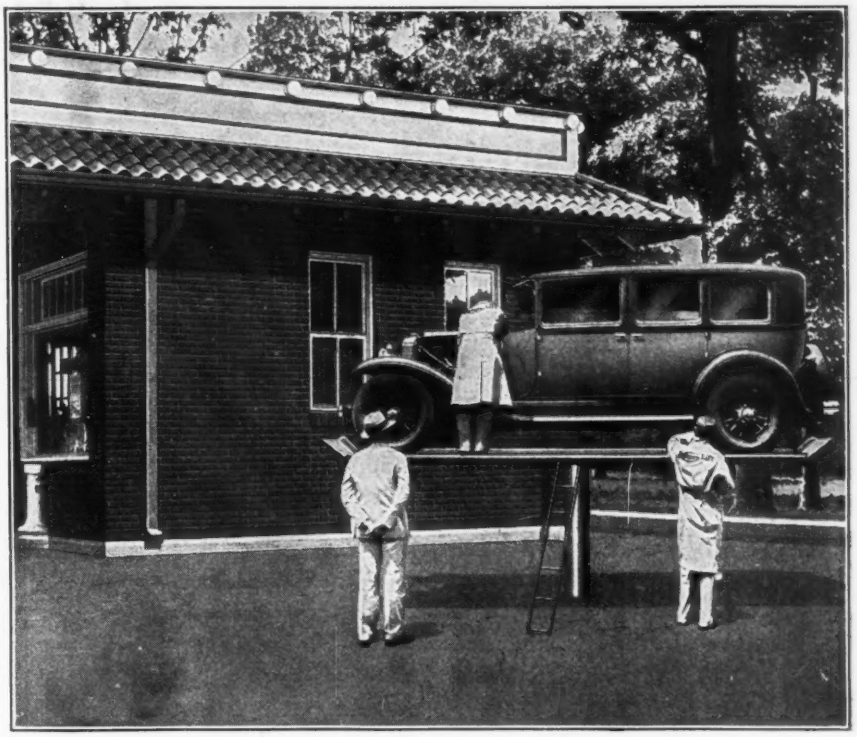
New York City	17
New England	19
New Jersey	16
Pennsylvania	16-18

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

	Gasoline T.W.	Tax	T.W.	S.S.	Oil T.W.
ONTARIO					
Toronto	20.5	5	25.5	29	21
Ottawa	14.5	5	19.5	23	21
Cochrane	25.5	5	30.5	..	26
Ft. William	23.5	5	28.5	32	23.5
MANITOBA					
Winnipeg	22.5	3	25.5	29	22.5
SASKATCHEWAN					
Regina	27	3	30	34	27
ALBERTA					
Edmonton	28.5	5	33.5	37	28.5
Calgary	24.5	5	29.5	33	24.5
BRITISH COLUMBIA					
Vancouver	23	3	26	30	24
QUEBEC					
Montreal	21.5	5	26.5	30	22
Quebec City	22.5	5	27.5	31	23
Three Rivers	22.5	5	27.5	31	23
NEW BRUNSWICK					
St. John	25	5	30	34	25
Moncton	25	5	30	34	25
NOVA SCOTIA					
Halifax	25	5	30	34	25
Sydney	25	5	30	34	25
PRINCE EDWARD ISLAND					
Charlottetown	25	5	30	34	25

Note: In districts surrounding these points 1c additional is added to city price.



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How Many Aeroplanes?

National Petroleum News is compiling a census of aeroplanes owned by its readers.

If you or your company own one or more planes, will *you* drop us a line telling us the make, the type and how planes are used in *your* business?

Pictures will also be welcome.

NATIONAL PETROLEUM NEWS
1213 West Third Street Cleveland, Ohio

Modern Equipment *Does* Increase Station Sales

Give them credit for knowing how to ring the cash register—these executives of the big marketing companies responsible for the "de luxe" type of stations. When from ten to fifty thousand dollars goes into buildings alone, you can be sure that the equipment is the best and most modern these shrewd merchandisers can find.

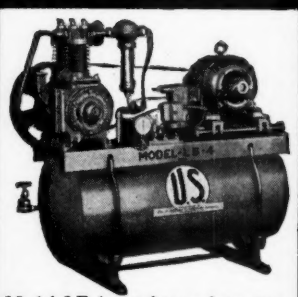
Look behind the scenes in these luxurious new service stations and you are most likely to find U. S. Air Compressors, the U. S. Electro Hy-Press Grease Gun and the U. S. Spring Sprayer.

U. S. Air Engineers have kept constantly abreast of the rapidly changing requirements of equipment for servicing motor cars and have always been ready with the newest and most modern equipment. As stations become bigger and better, U. S. Equipment will still be helping to ring the cash registers.

U. S. Equipment makes better salesmen of service station attendants, keeps up their morale and helps them to please customers with speedy, efficient service.

The U. S. Electro Hy-Press Grease Gun is a speedy, portable electrical unit for chassis lubrication.

The U. S. Spring Sprayer sprays springs with small air consumption.



Model LB-4, is a heavy-duty, two-stage air compressor for stations requiring a large volume of air at high pressure of 165 to 200 pounds.

The U. S Spring Tank Oiler lubricates springs and chassis with a needle-like stream of penetrating oil.

U.S. AIR COMPRESSOR COMPANY

5314 Harvard Ave., Cleveland, Ohio

Manufacturers of Air Compressors, Car Washing Systems, Paint Spray Units, and High Pressure Grease Guns

Please send me details about items checked below:

☐ Air Compressors ☐ Car Washers
☐ Paint Spray ☐ Greasers

Name .....

Address .....

Crude Oil Prices (in Effect Aug. 19, 1929)

(Crude prices for the whole year in OIL PRICE HANDBOOK published annually)

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in New York Transit Lines (Alleghany, N. Y. District) *$3.30
Bradford District Oil in National Transit Lines (Bradford District) *3.30
Penna. Grade Oil in National Transit Lines (Other Pennsylvania) *3.30
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania) 3.25
Penna. Grade Oil in Eureka Pipe Lines (West Virginia) 3.15
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district) 2.95
Corning Grade in Buckeye Pipe Lines (Ohio) 1.90
Corning, O., heavy grade 1.80
Somerset Oil in Cumberland Pipe Lines (Kentucky) 1.80
Ragland Grade in Cumberland Pipe Lines (Kentucky) $0.60

***Oil run prior to July 1, 1929 is $3.25 per bbl.**

(Posted by Stoll Oil Refining Co.)

Oil City, Ky., oil in Stoll lines $1.80

MICHIGAN

(Posted by Dixie Oil Co.)

Dundee (Muskegon) $1.25

Traverse (Muskegon):

32-32.9	$1.25	37-37.9	$1.50
33-33.9	1.30	38-38.9	1.55
34-34.9	1.35	39-39.9	1.60
35-35.9	1.40	40-40.9	1.65
36-36.9	1.45	41-41.9	1.70

(Posted by Pure Oil Co.)

Midland, Midland County $1.70

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Effective May 21, 1929

Wooster	$1.90	Princeton	$1.75
Lima	1.80	Illinois	1.75
Waterloo	1.20	Plymouth	1.28
Indiana	1.57	West Kentucky	1.83

CANADIAN CRUDE

Posted by Imperial Oil Refineries, Ltd.

Petrolia $2.20
Oil Springs 2.27

OKLAHOMA, KANSAS and NORTH TEXAS

Prices of Prairie Oil & Gas Co.

(In Oklahoma, Kansas, North and East Central Texas)

Effective May 20, 1929

Below 25	$0.85	35-35.9	$1.40
25-25.9	0.90	36-36.9	1.45
26-26.9	0.95	37-37.9	1.50
27-27.9	1.00	38-38.9	1.55
28-28.9	1.05	39-39.9	1.60
29-29.9	1.10	40-40.9	1.65
30-30.9	1.15	41-41.9	1.70
31-31.9	1.20	42-42.9	1.75
32-32.9	1.25	43-43.9	1.80
33-33.9	1.30	44 and above	1.85
34-34.9	1.35		

Humble Oil & Refining Co. Prices

(Ranger, North Texas, Mexia, Powell, Boggy Creek, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

May 20, 1929, same schedule as Prairie in above fields.

Magnolia Petroleum Co.

(In Oklahoma, Kansas and North and East Central Texas)

May 20, 1929, Magnolia posted in above fields and in Panola Co., same schedule as Prairie, except these grades:

Below 26	$0.70	29-29.9	$0.95
26-26.9	0.75	30-30.9	1.05
27-27.9	0.85	31-31.9	1.15
28-28.9	0.90		

May 20, 1929, Glasscock, Crane, Upton, Winkler, Howard and Mitchell Counties same prices as Humble's postings in West Texas which see.

Iatan district $0.93
Corsicana heavy 0.80
Luling 0.90
Mirando 0.90

Carter Oil Co.

(Oklahoma and Kansas)

May 20, 1929, same schedule as Prairie except Carter does not post oil below 25.

PANHANDLE, TEXAS

Humble Oil & Refining Co.

Effective May 20, 1929

Hutchinson and Carson Counties:

Below 32	$0.90	38-38.9	$1.25
32-32.9	0.95	39-39.9	1.30
33-33.9	1.00	40-40.9	1.35
34-34.9	1.05	41-41.9	1.40
35-35.9	1.10	42-42.9	1.45
36-36.9	1.15	43-43.9	1.50
37-37.9	1.20	44 and above	1.55

Wheeler County:

Below 30	$0.90	37-37.9	$1.30
30-30.9	0.95	38-38.9	1.35
31-31.9	1.00	39-39.9	1.40
32-32.9	1.05	40-40.9	1.45
33-33.9	1.10	41-41.9	1.50
34-34.9	1.15	42-42.9	1.55
35-35.9	1.20	43-43.9	1.60
36-36.9	1.25	44 and above	1.65

Gray County:

Below 29	$0.90	37-37.9	$1.35
29-29.9	0.95	38-38.9	1.40
30-30.9	1.00	39-39.9	1.45
31-31.9	1.05	40-40.9	1.50
32-32.9	1.10	41-41.9	1.55
33-33.9	1.15	42-42.9	1.60
34-34.9	1.20	43-43.9	1.65
35-35.9	1.25	44 and above	1.70
36-36.9	1.30		

Above prices met by The Texas Co. and Magnolia on May 20.

WEST TEXAS

Humble Oil & Refining Co.

Effective May 20, 1929

Winkler, Crane, Upton, Crockett, Howard and Pecos Counties, also Lea County, N. Mex.

Below 25	$0.70	25-25.9	$0.74
26-26.9	0.78	32-32.9	$1.02
27-27.9	0.82	33-33.9	1.06
28-28.9	0.86	34-34.9	1.10
29-29.9	0.90	35-35.9	1.14
30-30.9	0.94	36 and above	1.18
31-31.9	0.98		

May 20, 1929, The Texas Co. posted same prices as Humble in Crane, Upton, Pecos and Winkler., and Magnolia in Crane, Upton, Winkler, Glasscock, Howard and Mitchell

SOUTHWEST TEXAS

(Posted by Humble Oil & Refining Co.)

Effective May 20, 1929

Mirando $0.90
Salt Flat 1.25

NORTH LOUISIANA—ARKANSAS FIELDS

Prices of Standard Oil Co. of Louisiana

Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton, De Soto and **Cotton Valley.

Effective May 22, 1929

Below 28	$1.00	36-36.9	$1.45
28-28.9	1.05	37-37.9	1.50
29-29.9	1.10	38-38.9	1.55
30-30.9	1.15	39-39.9	1.60
31-31.9	1.20	40-40.9	1.65
32-32.9	1.25	41-41.9	1.70
33-33.9	1.30	42-42.9	1.75
34-34.9	1.35	43-43.9	1.80
35-35.9	1.40	44 and above	1.85

**Cotton Valley, below 36, $0.85. Beginning with 36-36.9, same schedule as above.

Smackover, below 24 ..... $0.85
do 24 and above 1.00
Bellevue 1.30
*Urania, La 1.10
†East El Dorado 0.75

*Posted by Louisiana Oil Refining Corp.

†Posted by Magnolia Petroleum Co.

May 20, The Texas Co. same schedule in Louisiana as Standard, plus these grades: 24-24.9, $0.85; 25-25.9, $0.90; 26-26.9, $0.95; 27-27.9, $1.00.

May 22, Magnolia, Atlantic, Shreveport-Eldorado Pipe Line, Louisiana Oil, and Gulf Companies met Standard schedule in Louisiana-Arkansas fields.

STEPHENS, ARKANSAS

Louisiana Oil Refining Corp., and Atlantic Oil Producing Co.

Effective May 22, 1929

Below 28	$0.90	30-30.9	$1.02
28-28.9	0.94	31-31.9	1.06
29-29.9	0.98	32 and above	1.10

GULF COASTAL

Posted by Humble Oil & Refining Co.

Effective May 20, 1929

Grades A	$1.30	29-29.9	$1.30
Grades B:		30-30.9	1.33
Below 25	$1.15	31-31.9	1.36
25-25.9	1.18	32-32.9	1.39
26-26.9	1.21	33-33.9	1.42
27-27.9	1.24	34-34.9	1.45
28-28.9	1.27	35 and above	1.48

Fields classified as A and B are Spindletop, Goose Creek, Hull, Liberty, Sour Lake, West Columbia, Orange, Boling, Pierce Junction, Sugarland and Raccoon Bend. All other fields are Grades A only.

More Companies Joint Safety Movement

CHICAGO, Aug. 16.—Every division of the petroleum section of the National Safety Council obtained a new member during June except the Atlantic division. These are the new members together with the names of heads of the safety work:

Great Lakes division, Indian Refining Co., Lawrenceville, Ill., H. C. Thompson; Mid-Continent division, Baird Tool Works, Inc., Tulsa, L. D. Baird, manager; Champlin Refining Co., Enid, Okla., E. J. Slater, superintendent; and The Mission Oil Co., Kansas City, A. R. Jones, president; Rocky Mountain division, Dallas Dome Wyoming Oil Field Co., Lander, Wyo., Frank M. Brooder, general manager; Gulf state division, Dixie Oil Co., Shreveport, F. O. Prior, vice president; and Lone Star Gas Co., Dallas, E. F. Schmidt, general superintendent; Pacific division, Petroleum Rectifying Co., Los Angeles, H. C. Eddy, chief engineer; and Bash Ross Tool Co., Los Angeles, O. V. Parker, personnel director.

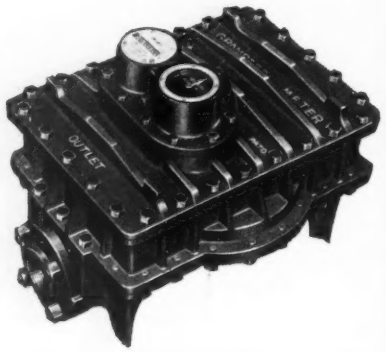
CLEVELAND, Aug. 16.—Imports of crude oil for the second quarter of the year were slightly more than for the first quarter, 21,971,000 barrels for the second quarter and 21,881,000 barrels first quarter. Imports of refined oils more than doubled. First quarter imports were 3,251,000 barrels against 7,760,000 barrels in the second quarter. These figures are from the Aug. 12 issue of Commerce Reports issued by the U. S. Department of Commerce.

Mid-West Oil in New Compounding Plant

KANSAS CITY, Kan., Aug. 16.—The new compounding plant of the Mid-West Oil Co., compounder and wholesaler of lubricating oils and greases, is now in operation here on south James street. It has a storage capacity of 250,000 gallons of lube oils and additional storage will be added later, according to E. P. Maurin, manager.

Modern equipment for the most economical production has been installed. The company is owned and operated by Ernest P. Maurin and Julius P. Maurin, brothers, who organized the company about four years ago. It sells Pennsylvania, Mid-Continent and Texas oils in Kansas, Missouri, Iowa, Nebraska, Colorado and New Mexico.

The Granberg Petroleum Meter



A SIMPLE and RELIABLE Instrument

THE GRANBERG METER is designed for use in all branches of the petroleum industry where the accurate measurement of petroleum is required.

Its freedom of movement makes it well adapted to installations which must operate on low gravity heads.

Catalog upon Request.

GRANBERG METER CORPORATION
"Precision Meters for Petroleum Oils."
79 New Montgomery St. San Francisco, Calif.

"What About The OILGRAM?"

—asked the executive of a gasoline company on the west coast recently of a Tulsa oil man. His answer was . . .

> "If you were to wire me for Mid-Continent gasoline prices today, I would phone a member of the OILGRAM staff, and my reply to you would be the *gist of what he told me.* The OILGRAM staff is in direct and close contact with the markets almost every hour of the business day. *They know their business.*"

You too, can have the benefit of this close contact with all phases of the market at all the principal refining and marketing centers.

The service costs only $25 a quarter, or $75 a year, payable in advance. Approximately 30 cents a day—less than the cost of one wire or one phone call.

Avail yourself of this fast, daily market service today—send your order with check to the nearest mailing point.

TULSA—904 World Bldg.
CHICAGO—35 East Wacker Drive
NEW YORK—342 Madison Avenue
CLEVELAND—1213 West Third St.

TANKS, BARRELS, PUMPS, EQUIPMENT

THE following is a partial list of the products which we are regularly supplying to the oil trade. Do not hesitate to send us your inquiry on any special weight or out of the ordinary equipment or any other special steel plate construction:

Field Tanks, up to 55,000 barrels
Bulk Storage Tanks and equipment complete
Fuel Oil Tanks, all types and sizes
Truck Tanks, oval, round, square, or semi-rectangular
Fuel Oil Truck Tanks, insulated and with heating arrangement
Lubricating Oil Plants, including complete compounding equipment
Grease and Soap Kettles, steam jacketed, with air or mechanical agitator
Steel Drums, complete line
Rotary and Plunger Type Pumps, valves, and fittings

BROWN SHEET IRON & STEEL CO.

964 Berry Avenue **St. Paul, Minn.**

Tear off this Coupon and Mail it *Today*

Interested in.....

Size..... Truck.....

Other Equipment.....

Name.....

Address.....

Crude Oil Prices (in Effect Aug. 19, 1929)

(Crude prices for the whole year in OIL PRICE HANDBOOK published annually)

GULF COASTAL

Prices of The Texas Co.

Effective May 20, 1929

Grades A	$1.30	*Grades B	$1.15
‡Grades B (light crude):			
35-35.9	$1.49	40-40.9	$1.69
36-36.9	1.53	41-41.9	1.73
37-37.9	1.57	42-42.9	1.77
38-38.9	1.61	43-43.9	1.81
39-39.9	1.65	44 and above	1.85

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on all below 35° is same as Humble's postings on Grades B.

ROCKY MOUNTAIN FIELDS

Prices of Ohio Oil Co., and Midwest Refining Co.

(Salt Creek prices effective May 20, 1929)

‡Salt Creek 29-29.9	$1.10
" " 30-30.9	1.15
" " 31-31.9	1.20
" " 32-32.9	1.25
" " 33-33.9	1.30
" " 34-34.9	1.35
" " 35-35.9	1.40
" " 36-36.9	1.45
" " 37 and above	1.50
Elk Basin	1.65
Grass Creek light	1.65
Big Muddy	$1.43
Lance Creek	1.68
Rock Creek	1.40
Mule Creek	1.20
Rex Lake	1.10
‡Osage	1.65
‡Cat Creek, Mont.	1.65
Sunburst, Mont.	1.75
‡Hogback, N. Mex.	1.70
Artesia, N. Mex.	1.08

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

CALIFORNIA

***Standard Oil Co. of California**

Gravity	Signal Hill Seal Beach Alamitos Heights Huntington Beach	Inglewood Torrance	Ollinda-Brea Canon Richfield	Athens-Rosecrans Dominguez	Elwood Terrace	Whittier La Habra	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway Sunset Buena Vista & Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Montebello	Kettleman Hills	*Santa Maria (Orcutt)	*Ventura
14-14.9	$ .70	$ .70	$ .70	....	....	$ .70	$ .70	....	$ .50	$ .50	$ .50	$ .50	$ .50	$ .70	....	$ .65	$ .70
15-15.9	.70	.70	.70	....	....	.70	.70	....	.50	.50	.50	.50	.50	.70	....	.65	.70
16-16.9	.70	.70	.70	....	....	.70	.70	....	.50	.50	.50	.50	.50	.70	....	.65	.70
17-17.9	.70	.70	.70	....	....	.70	.70	....	.50	.50	.50	.50	.50	.70	....	.65	.70
18-18.9	.75	.75	.75	....	....	.75	.75	....	.50	.56	.56	.56	.56	.70	....	.70	.75
19-19.9	.80	.80	.80	....	....	.80	.80	....	.50	.62	.62	.62	.62	.75	$1.65	.70	.80
20-20.9	.85	.85	.85	....	....	.84	.84	....	....	.68	.68	.68	.68	.80	for	.70	.85
21-21.9	.89	.89	.89	....	....	.88	.88	.89	....	.74	.74	.74	.74	.85	55°	.86	.86
22-22.9	.93	.93	.93	....	....	.91	.91	.92	....	.80	.80	.80	.80	.90	gravity	.87	.87
23-23.9	.97	.97	.97	....	....	....	.94	.95	....	.85	.85	.85	.85	.95	and	.90	.90
24-24.9	1.01	1.01	1.01	1.01	....	....	.97	.98	....	.90	.90	.88	.88	.98	over	.94	.94
25-25.9	1.05	1.05	1.05	1.05	....	....	1.00	1.01	....	.95	.95	.91	.91	1.01	....	.98	.98
26-26.9	1.09	1.09	1.09	1.09	....	....	1.04	1.04	....	1.00	1.00	.94	.94	1.04	....	1.02	1.02
27-27.9	1.13	1.13	1.13	1.13	....	....	1.08	1.07	....	1.05	1.05	.98	.97	1.07	....	....	1.06
28-28.9	1.17	1.17	1.17	1.17	....	....	1.12	1.10	....	1.10	1.10	1.02	....	1.10	....	....	1.10
29-29.9	1.21	....	1.21	1.21	....	....	1.16	1.15	....	1.16	1.16	1.06	....	1.13	....	....	1.14
30-30.9	1.25	....	1.25	1.25	....	....	1.20	1.20	....	1.22	1.22	1.10	....	1.16	....	....	1.18
31-31.9	1.30	....	....	1.30	....	....	....	1.25	....	1.28	1.28	1.14	....	....	....	....	1.23
32-32.9	1.35	....	....	1.35	....	....	....	1.30	....	1.34	1.34	1.18	....	....	....	....	1.28
33-33.9	....	....	....	1.41	....	....	....	1.35	....	1.40	1.40	1.22	....	....	....	....	1.34
34-34.9	....	....	....	1.47	$1.16	....	....	1.40	....	....	1.46	1.26	....	....	....	....	....
35-35.9	....	....	....	1.53	1.22	....	....	1.45	....	....	....	1.30	....	....	....	....	....
36-36.9	....	....	....	1.59	1.28	....	....	1.50	....	....	....	....	....	....	....	....	....
37-37.9	....	....	....	1.65	1.34	....	....	1.55	....	....	....	....	....	....	....	....	....
38-38.9	....	....	....	1.71	1.40	....	....	1.60	....	....	....	....	....	....	....	....	....
39-39.9	....	....	....	1.77	1.46	....	....	1.65	....	....	....	....	....	....	....	....	....
40-40.9	....	....	....	1.83	1.52	....	....	....	....	....	....	....	....	....	....	....	....
41-41.9	....	....	....	1.89	1.58	....	....	....	....	....	....	....	....	....	....	....	....
42-42.9	....	....	....	1.95	1.64	....	....	....	....	....	....	....	....	....	....	....	....

*Santa Maria and Ventura postings are by Union Oil Co. Union Oil Co. posts same prices in all above fields as Standard except it does not post prices in Wheeler Ridge, Whittier, La Habra, Newhall and Kettleman Hills. Standard does not contract for crude testing 11-13.9 gravity, but pays 45c a barrel when purchased.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are average market prices for materials used by refiners and compounders effective on the date shown.

Refiners' Supplies

	Aug. 19	Aug. 12
Soda Ash light 58% bags, cwt.	$1.32	$1.32
Silicate of Soda 60 deg. drums, cwt.	$1.55	$1.55
Silicate of Soda 40 deg. tank cars, cwt.	$0.60	$0.60
Silicate of Soda 40 deg. drums cwt.	$0.80	$0.80
Sal Soda wks.	$0.90-1.00	$0.90-1.00
Caustic Soda 76% solid, cwt.	$2.90	$2.90
Sulfuric Acid 60 deg. tank cars, f.o.b. shipping point per ton	$11.00	$11.00
Oleum 20%, fuming sulfuric, tank cars, wks.	$18.50	$18.50
Sulfur, flowers of, cwt.	$3.10-4.00	$3.50-4.50
Liquid Chlorine, tank cars, wks., lb.	3.50–5.00	3.50–5.00

Compounders' Supplies

	Aug. 19	Aug. 12
Vegetable Oils		
Linseed carloads, spot, lb.	12.70	13.60
Tanks, spot	11.90	12.00
Soya Bean, Tanks, coast, lb.	9.50	9.50
Oleic Acid		
Distilled, tanks, lb.	9.75	9.25
Distilled, bbls., lb.	10.875	10.375
Saponified, tanks, lb.	9.75	9.50
Saponified, bbls., lb.	10.625	10.625
Lard Oils		
Prime Winter Strained, lb.	15.25	14.75
Extra Winter Strained, lb.	14.75	12.25
Extra, lb.	12.50	11.875
Extra No. 1, lb.	12.00	11.50
No. 1, lb.	11.75	11.125
No. 2, lb.	11.50	10.875
Tallow oil, lb.	11.00	10.375
Neatsfoot Oil		
Pure, bbls., lb.	14.50	14.00
Extra, bbls., lb.	12.25	11.75
No. 1 bbls., lb.	12.00	11.375
Cold Pressed, lb.	18.50	18.125
Fish Oils		
Menhaden Oil		
Light Pressed, gal.	72	72
Light Pressed, tank cars, N.Y., gal.	62	62
White bleached, gal.	77	77
Yellow bleached, gal.	75	75
Whale, extra winter bleached, gal.	82	82
Naval Stores		
Steam distilled turpentine, N. Y., gal.	51	51
Steam distilled turpentine, Savannah, gal.	45	45
Gum turpentine, N. Y., gal.	50	50
Gum turpentine, f.o.b. cars Savannah, gal.	48	48
Wood Rosin F, N. Y., bbl.	$7.30	$7.30
Wood Rosin F, Savn'h., bbl.	$6.50	$6.50
Gum Rosin B, N. Y., bbl.	$8.60	$8.60
Gum Rosin B, f.o.b. cars Savannah, bbl.	$7.75	$7.75
Rosin oil, pure, gal.	61	61
Rosin oil, compounded, gal.	50	50
Pine Tar		
Kiln burnt, bbl.	$13.00–14.00	$13.00–14.00
Retort, bbl.	$13.50–14.50	$13.50–14.50
Alcohol		
Denatured Formula 5, in bbls., per gal.	58–65	58–65

Bureau of Mines Report

(*Continued from Page* 108)

barrels, Louisiana was down 4,762 barrels and Rocky Mountain 2,071 barrels. Increase in Texas was 19,976 barrels and in California 786 barrels.

Motor fuel blends made increase in June in Texas, but declined in Oklahoma, Appalachian, and Arkansas districts. Stocks of motor fuel blends were higher in all districts.

Kerosene

Daily average output of kerosene in June was 164,367 barrels, or 5.96 per cent higher than in May. Daily average shipments to domestic distributors or users in June was 18.08 per cent lower than in May, but export shipments were 26.43 per cent higher, making daily average shipments for the country only 4.10 per cent below May.

Stocks at the end of June were 8,348,000 barrels, an increase of 7.83 per cent over May 31, but 84,000 barrels, or 1.01 per cent less, than on June 30, 1928.

Increases in daily average output were California 6.02 per cent; East Coast 13.09 per cent; Appalachian 5.72 per cent; Indiana, Illinois and Kentucky 11.46 per cent; Oklahoma, Kansas, Missouri 7.28 per cent; north Louisiana and Arkansas 34 per cent. Rocky Mountain production declined 17.09 per cent, and inland Texas was down 3.03 per cent.

Most districts shipped less kerosene in June than in May. Increased shipments were made from Gulf Coastal Louisiana of 18.48 per cent, California 1.68 per cent; Appalachian 6.84 per cent; and north Louisiana and Arkansas 17.08 per cent; East Coast shipments were off 0.32 per cent, Indiana, Illinois and Kentucky 11.69 per cent, Oklahoma, Kansas, Missouri, 15.71 per cent, Rocky Mountain 20.63 per cent.

All districts reported increased stocks in June over May, excepting Inland Texas down 5,000 barrels and north Louisiana and Arkansas down 3,000 barrels.

June, 1929, stocks were lowered in all districts over June, 1928, except California which was 157,000 barrels more, Appalachian 15,000 barrels, Oklahoma, Kansas and Missouri 86,000 barrels and Inland Texas 69,000 barrels.

For the first six months of 1929 production was 1,833,000 barrels, or 6.18 per cent less than in the corresponding period of 1928. Imports declined 3,000 barrels or 2.78 per cent, and exports were off 1,059,000 barrels or 9.31 per cent. Domestic shipments for these periods increased 703,000 barrels or 3.98 per cent in 1929, while stocks were down 1.01 per cent this year.

Lubricating Oils

Stocks at the end of June were 4.22 per cent less than in May. Daily average production in June increased 0.68 per cent over May while daily average shipments were 13.96 per cent greater. There was an increase of 2.35 per cent in stocks of June 30, 1929, compared to stocks of June 30, 1928.

Daily average domestic production in June was up 0.68 per cent, imports increased 55.04 per cent, making the average new supply 0.76 per cent higher. Average daily shipments to domestic distributors and users was 11.14 per cent higher in June over May. Exports were up 21.09 per cent.

A comparison of June stocks with those for May shows declines in all districts except California, Appalachian and north Louisiana and Arkansas. California stocks increased 90,000 barrels, Appalachian 38,000 barrels and north Louisiana and Arkansas 1,000 barrels.

Stocks on June 30, 1929, compared to June 30, 1928, were up 290,000 barrels at Gulf plants, down 153,000 barrels on the East Coast, up 225,000 barrels in California, up 80,000 barrels in Appalachian district and down 79,000 barrels in Oklahoma, Kansas and Missouri.

Daily average output in June was 6.69 per cent higher on East Coast than in May, 16.16 per cent higher in California, 1.69 per cent higher in Appalachian district, 7.81 per cent higher in Oklahoma, Kansas and Missouri, and 9.88 per cent higher in north Louisiana and Arkansas.

Appalachian shipments in June increased 44.36 per cent over May, East Coast 15.46 per cent, Oklahoma, Kansas and Missouri 3.34 per cent, and Rocky Mountain 3.36 per cent. California daily average shipments were down 38.87 per cent.

Production in the first six months of this year compared to first six months of 1928 was off 0.94 per cent, a decline of 164,000 barrels. Imports increased 300 per cent and exports were off 3.05 per cent. Domestic shipments were up 4.41 per cent and stocks were up 2.35 per cent.

Paraffin Wax

Stocks in June increased 5.37 per cent over May to 188,764,000 pounds. Compared to June 30, 1928, stocks were increased by 96,775,000 pounds or 105.20 per cent on June 30, 1929.

Production in June fell off to 52,714,000 pounds from May or 1.99 per cent. June, 1929, production was 3.78 per cent higher than June, 1928. For the first six months of 1929 production was 4.98 per cent higher than for the same period in 1928.

Domestic shipments in June totaled 21,173,000 pounds, a decline of 30.72 per cent over June, 1928, and 28.03 per cent less than May, 1929.

Exports for the first six months of 1929 were 78,574,000 pounds or 35.64 per cent lower than for the corresponding period in 1928. Imports for the six months were 6,388,000 pounds or 59.22 per cent higher in 1929 over 1928.

Gas and Fuel Oils

Output increased 0.03 per cent daily average in June compared to May. Imports dropped 13.50 per cent daily average, making daily average new supply down 0.63 per cent. Daily average shipments to domestic distributors and users was 2.64 per cent lower in June than in May, exports were up 12.50 per cent, making the daily average for the country, exclusive of California, 0.76 per cent lower.

Stocks on June 30, 1929, were 37,332,000 barrels or 4.76 per cent higher than in May. For the first six months of 1929 stocks were 3.46 per cent higher than in the first six months of 1928.

Daily average output in California was up 5.52 per cent in June over May, 2.73 per cent on the East Coast, 4.99 per cent in Appalachian district, and 1.87 per cent in Indiana, Illinois and Kentucky district. Declines were 26.19 per cent in Gulf Coast Louisiana, 3.62 per cent in Oklahoma, Kansas and Missouri, 8.43 per cent in north Louisiana and Arkansas, 13.55 per cent in Rocky Mountain.

Daily average shipments in June over May increased 3.26 per cent in Indiana, Illinois and Kentucky, and 11.54 per cent in Oklahoma, Kansas and Missouri. Decreases were made in East Coast of 5.60 per cent, Appalachian 5.20 per cent, and 3.58 per cent in Gulf Coast Texas.

Stocks in Oklahoma, Kansas and Missouri in June over May increased to 6,164,000 barrels or 3.32 per cent. East Coast stocks were up to 7,006,000 barrels or 15.67 per cent.

For the first six months of 1929 stocks, exclusive of California, were increased 1,247,000 barrels or 3.46 per cent over the first six months of 1928. Production in these periods was 8.54 per cent greater in 1929. Exports fell off in 1929 by 5,164,000 barrels or 21.86 per cent, while imports rose 2,873,000 barrels or 63.91 per cent.

CLEVELAND, Aug. 17.—Exports of refined oils from the United States in the second quarter of 1929 were 31,389,000 barrels according to the Aug. 12 issue of Commerce Reports issued by the U. S. Department of Commerce. Refined oil exports in the first quarter of 1929 were 29,586,000 barrels, and for the second quarter of 1928 34,383,000 barrels. Crude oil exports in the second quarter of 1929 were 6,294,000 barrels, same period of 1928 4,674,000 barrels, and for the first quarter of 1929 5 222,000 barrels.

Your Customers will Appreciate This Easy and Profitable Service

THE minute a fellow finds his gas tank cap gone—he wants a new one. No shopping around. He wants it *then and there!* If you're not ready to supply him, you may lose the sale of gas and oil.

There's fine service business waiting for you on Monmouth Gas Tank Caps—an opportunity to do your customer a favor, without sales effort, and with a nice profit on every transaction.

Monmouth Caps fit every car. Go on easily with just one-eighth of a turn—leak proof—rattle proof—can't be lost. A safety chain connects each cap permanently with the gas tank.

And an attractive display board is furnished to do all the necessary selling—takes no time or effort away from the regular business of selling gas and oil.

One car out of every twelve lost a gas tank cap last year—most of these were replaced by Monmouth at filling stations.

Made and sold by
THE EATON BUMPER & SPRING SERVICE CO.
Cleveland, Ohio

Branches: Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Kansas City, Philadelphia

Fit every car
Never get lost
Can't rattle
Go on easily
Come off quickly
Leak-proof

Transactions in Oil Shares on New York Stock Exchange

1928 High	1928 Low	1929 High	1929 Low	Listed Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Aug. 17 Sales	First	High	Low	Last	Change
43⅜	27⅛	42⅝	22½	(sh) 922,075	N.P.	Amerada Corp.	50cQ	July 31, 29	142,000	26	30¼	26	30	+ 4¼
85	51¼	64¾	31	(sh) 209,180	N.P.	American Republics Corp.	....	.....	11,400	34½	42⅝	34	41¾	+ 9¼
53⅜	37½	47¼	40	$56,000,000	$25	Associated Oil.	50cQ	June 30, 29	130	44¼	44¼	44	44¼	+ ¼
62½	50	77⅛	53½	50,000,000	25	Atlantic Refining.	‡25cQ	June 15, 29	119,400	63⅞	71½	63⅛	70⅞	+ 8¼
53	20	49⅛	33⅛	47,261,125	25	Barnsdall Corp. A.	‡50cQ	Aug. 6, 29	885	34	41⅝	34	41¼	+ 7
51⅛	20	49	38⅛	300,525	25	do B.	‡50cQ	Aug. 6, 29	.....	....	....	....	....	.....
24½	12¼	32	20	(sh) 956,075	N.P.	Beacon Oil.	....	.....	34,700	27	*32	27	31½	+ 3
36	25¼	30	25	$51,524,150	$25	California Petroleum.	....	Jan. 1, 29	20	27⅛	27⅛	27⅛	27⅛	+ 1⅛
.....	....	37¾	29½	(sh) 4,634,163	N.P.	Continental Oil (Delaware).	....	.....	87,500	28⅜	*37¾	28⅜	36⅞	+ 7⅞
94⅞	68	94¾	63	21,031,400	100	General Asphalt.	....	.....	67,500	86½	*94¾	86½	94	+ 8
141	110⅛	141	104½	6,628,200	100	do pfd.	$1.25Q	June 1, 29	800	130	*141	130	141	+10¾
167	79	107	68¾	25,000,000	100	Houston Oil.	....	.....	14,100	69⅛	82⅞	69⅛	82½	+13¾
38⅜	21¾	39¼	29⅛	(sh) 1,333,157	N.P.	Independent Oil & Gas.	50cQ	Apr. 30, 29	33,000	29½	34¼	29⅜	34	+ 4⅝
39⅝	9	53⅛	29	$4,299,190	$10	Indian Refining.	....	Dec. 15, 20	18,900	42⅛	*53⅛	42	51⅝	+ 9¾
37¼	8½	49¾	28	4,550,110	10	do ctfs.	....	.....	8,100	40⅜	*49¾	40⅜	49⅝	+ 9½
185	140	165	160	1,977,700	100	do pfd. new.	$1.75Q	July 1, 29	.....	....	....	....	....	.....
39⅛	27⅜	38⅜	26	3,992,387	N.P.	Lago Oil & Transport.	....	May 2, 27	5,100	30¼	34⅞	30¼	33	+ 3½
19⅜	9⅜	18	10⅜	(sh)1,187,298	N.P.	Louisiana Oil Refining.	....	.....	28,600	10⅝	13¼	10⅝	13⅛	+ 2⅝
96	78	100	89	$4,000,000	$100	do pfd.	$1.62½	Aug. 15, 29	10	90⅜	90⅜	90⅜	90⅜	0
25½	12½	18½	12	(sh) 330,000	N.P.	Maracaibo Oil.	....	.....	6,400	15	17⅞	14⅝	16⅛	+ 1¼
49¾	33	47⅛	33⅛	(sh)2,316,897	N.P.	Marland Oil Co.	....	Mar. 31, 27	.....	....	....	....	....	.....
360	250	295	205	$45,942,800	$100	Mexican Petroleum.	$3Q	July 20, 29	10	218	218	218	218	+ 6
....	....	....	....	12,000,000	100	do pfd.	$2Q	July 20, 29	.....	....	....	....	....	.....
73	4⅝	69⅜	33½	(sh) 995,500	N.P.	Mexican Seaboard.	....	Nov. 15, 24	80,600	35	41¾	35	40⅞	+ 5⅞
44½	25⅛	39⅞	30½	(sh) 1,857,461	N.P.	Mid-Continent.	50cQ	May 15, 29	63,200	31½	36⅜	31½	36	+ 5
120½	103¼	121	120¼	$6,718,000	$100	do pfd.	$1.75Q	June 1, 29	.....	....	....	....	....	.....
7⅜	2⅜	5⅛	2⅞	23,849,720	10	Middle States.	....	July 1, 23	22,300	3¼	3¼	12⅞	2⅞	— ¼
5⅞	1½	3⅝	2⅛	5,950,500	10	do ctfs.	....	.....	5,000	2½	2⅞	2¼	2½	— ⅛
2¼	1	1½	1	(sh)3,500,000	N.P.	Pacific Oil.	....	.....	13,200	1	1⅛	1	1⅛	+ ⅛
55½	38¼	65¾	41⅛	$50,000,000	$50	Pan American P. & T.	....	Oct. 20, 27	19,200	60⅜	*65¾	60⅜	65⅝	+ 7⅛
58⅞	37¾	66¾	40½	121,101,400	50	do B.	....	Oct. 20, 27	186,600	59	66	59	66	+ 6¾
28⅜	15½	17½	13¾	(sh) 400,000	N.P.	Pan American Western B.	....	Jan. 30, 27	180	15	15	13¾	15	+ 1¼
21⅜	11½	15¼	7⅜	(sh) 199,370	N.P.	Panhandle P. & R.	....	.....	2,100	7⅞	10¾	7⅞	10¾	+ 3⅝
106¼	70	76	47½	$2,935,200	$100	do pfd.	....	July 2, 23	200	55	59	55	59	+ 4
53⅞	35¼	47	35	(sh)2,406,803	N.P.	Phillips Petroleum.	37½cQ	July 1, 29	28,900	36⅝	40⅞	35¼	40½	+ 5⅝
5¼	½	3⅜	1⅜	$29,622,925	$25	Pierce Oil.	....	.....	5,900	1⅝	2¼	1⅝	2	+ ½
50	16¼	51½	30	15,000,000	100	do pfd.	....	Feb. 1, 22	1,600	38	42	38	42	+ 6
6⅝	3½	5⅞	4	(sh)2,500,000	N.P.	Pierce Petroleum.	....	.....	9,000	4½	5½	4⅜	5⅜	+ ⅞
64⅝	59½	65⅝	50	$60,636,450	$25	Prairie Oil & Gas.	.....	Aug. 31, 27	23,900	51	59½	50¾	59⅜	+ 8¾
....	....	64	50	101,250,000	25	Prairie Pipe Line.	‡75cQ	June 30, 29	22,900	59¾	*64	59⅝	63⅞	+ 3⅛
29¼	16	25⅞	11½	37,450,850	50	Producers & Refiners.	....	Sept. 15, 23	3,500	13½	17	13½	17	+ 3
49⅝	41	45⅝	34	2,845,350	50	do pfd.	....	May 1, 25	70	37½	38½	37½	38	+ 2
31¼	19	30¾	23½	75,959,255	25	Pure Oil Co.	37½cQ	June 1, 29	34,700	24¼	28	24¼	27⅞	+ 3⅛
119	108	115½	111½	13,000,000	100	do 8% pfd.	$2Q	July 1, 29	180	112⅛	112½	112	112	— ½
56	23½	49⅝	38⅜	47,127,725	25	Richfield Oil.	50cQ	Aug. 15, 29	27,900	39¼	44¾	38⅞	44¼	+ 5⅜
....	....	42½	26½	(sh) 1,200,000	N.P.	Rio Grande Oil Co.	‡$1S.A.	July 25, 29	44,900	28	32¾	28	32⅜	+ 5⅞
64	44⅝	55¾	31¾	(sh) 546,646	$13.40	Royal Dutch N. Y. shares.	$1.873	Aug. 10, 29	3,900	51	53	50¾	53	+ 2⅝
57½	39⅜	55¾	43	(sh) 65,203,000	£2	Shell Transport & T.	96.4c	Feb. 8, 29	300	44⅜	44⅜	44⅜	44⅜	+ 1
39⅜	23¼	31⅜	25	12,234,979	N.P.	Shell Union Oil.	35cQ	July 1, 29	391	25¼	29	24½	29	+ 3½
27¼	18⅛	40⅜	18¼	$8,357,280	$10	Simms Petroleum.	40cQ	June 15, 29	817	33⅞	*40⅛	33⅞	40	+ 6¾
46¾	17⅜	45	31½	5,494,095	N.P.	Sinclair Consolidated.	‡50cQ	July 15, 29	2,519	32⅞	39½	32¼	39	+ 6½
110	102½	111	107¾	$16,025,200	$100	do pfd.	$2Q	Aug. 15, 29	5	109⅛	109¼	109	109¼	+ 1¼
42⅝	25	46½	32⅞	27,396,590	25	Skelly Oil Co.	50cQ	June 15, 29	937	40	45⅜	40	45	+ 5½
80	53	81⅞	64	(sh) 13,016,435	N.P	S. O. California.	62½cQ	June 15, 29	75,900	70⅞	79⅜	70⅜	77¾	+ 8⅛
59¾	37¾	73⅜	48	$612,095,850	$25	S. O. New Jersey.	‡25cQ	June 15, 29	679,400	57	*73⅜	57	70⅞	+14⅝
45½	28¾	45¾	37⅝	434,094,575	25	S. O. New York.	40cQ	June 15, 29	291,900	37¾	43½	37¾	42⅝	+ 5⅜
77	31½	75	57	(sh) 1,297,847	N.P.	Sun Oil.	25cQ	June 15, 29	3,100	70½	74⅜	70⅛	74⅜	+ 3½
110	100	105½	100	$5,000,000	$100	do pfd.	$1.50Q	June 1, 29	100	101¼	102⅛	101	102⅛	— 1¼
14¼	2½	12	6	(sh) 1,304,698	N.P.	Superior Oil Corp.	....	Dec. 20, 20	24,600	6¼	7⅞	6¼	7⅝	+ 1½
74¾	50	68½	57¼	$211,082,925	$25	The Texas Corp.	75cQ	July 1, 29	84,900	60¼	66¾	60	65¾	+ 5¾
26⅝	12⅛	23⅞	15⅛	8,380,340	10	Texas Pacific Coal & Oil.	2½%	June 30, 29	98,100	16½	19½	16½	19½	+ 3
41½	19⅝	38½	27⅛	(sh) 2,179,275	N.P.	Tide Water Oil Co.	20cQ	June 30, 29	10	33¼	37	33¼	37	+ 4¾
100¼	86¾	97½	89¾	$20,321,000	$100	do 5½% pfd.	$1.25Q	Aug. 15, 29	16	90⅞	92¼	90¾	92¼	+ 1⅜
25	14¾	23½	17½	(sh) 4,877,976	N.P.	Tide Water Associated.	....	Aug. 1, 27	989	18⅜	22	18	22	+ 4⅛
91¾	81⅞	90⅞	84	$72,989,200	$100	do pfd.	$1.50Q	July 1, 29	10	88¾	89	87⅛	89	— ¾
14½	6¾	13	9	(sh) 3,842,029	N.P.	Transcontinental Oil.	....	.....	4,056	11⅜	12⅞	11⅞	13¼	+ 2
58	42¾	54½	45¾	$40,858,375	$25	Union Oil of California.	50cQ	Aug. 10, 29	150	46	52⅞	46	52¼	+ 6¼
128⅛	110	157¾	121⅞	31,101,200	100	Union Tank Car Co.	$1.25Q	June 1, 29	10	150	*157¾	150	157	+ 7
44⅞	26	42⅞	28⅜	(sh) 488,359	N.P.	Warner Quinlan.	50cQ	July 2, 29	5,600	29⅝	34½	29⅝	34½	+ 4⅞
38	20⅛	40½	30¼	(sh) 490,000	N.P.	White Eagle Oil & Refining.	50cQ	July 20, 29	4,600	39⅜	*40½	39⅜	40½	+ ⅜
22⅛	17¼	35	17⅞	(sh) 428,967	N.P.	Wilcox Oil & Gas.	....	May 10, 28	2,500	32⅜	*35	32⅜	35	+ 2½

*New High †New Low XEx-dividends ‡Also extras s-Stock Total Sales 2,459,395

Pittsburgh Stock Exchange

Transactions Week Ended Aug. 16, 1929

	Sales	High	Low	Last	Change
Ark. Nat. Gas.	5,120	16½	14¾	16½	+1¾
do pfd.	5,002	8¼	8	8⅛	0
Devonian Oil.	1,270	12	11½	11⅞	— ⅛
Dixie Gas & Util.	195	*25¾	22½	25¾	+2¼
do pfd.	70	75	72	72	+2
Lone Star Gas.	12,530	44	41¼	43	+2
Pet. Explor.	50	29	29	29	0
Phoenix Oil pfd.	11,740	.85	.50	.85	+.35
Pgh. Oil & Gas.	775	3½	3½	3½	0
Plymouth Oil.	655	24	23⅜	23¾	— ¼
Salt Creek Cons.	100	2½	2½	2½	+ ¼
Waverly Oil Wks A	300	25	25	25	0
Rights					
Col. Gas & Elec.	188	6¼	6¼	6¼	0

*New High.

Pittsburgh Curb Market

Transactions Week Ended Aug. 16, 1929

	Sales	High	Low	Last	Change
Ark. Gas "A".	965	16	15¼	16	+1⅛
Phoenix Oil.	16,200	.80	.50	.80	+.30

Hearing on Penna. Bond Injunction Postponed

(By Telegraph)

HARRISBURG, Pa., Aug. 19.—Hearing on a bill of equity filed to obtain corrections on the form of bond required by the state of oil companies has been postponed until Sept. 23. The bill was filed by the Pennsylvania Independent Oil Men's Association July 29 in the Common Court of Pleas here.

Changes in the case must be made now as the state has reduced the amount of bond from the equivalent of 10 months of the past year's gasoline tax paid to one month. Minimum amount of the bond in each case would be $500 as stated in the law. Maximum amount on the new basis would be $100,000.

Under the old basis of 10 months of the last year's taxes one company would have been required to post bond of $1,650,000, and some association members $50,000.

The association will continue its fight against corporate surety being required, and against the noncancellable and forfeiture clauses. Details of the bill and an explanation by R. A. Overholser, executive secretary of the association, were published in NATIONAL PETROLEUM NEWS, Aug. 7 issue, page 96.

Cleveland Stock Market

Aug. 16	Par Value	Bid	Asked
Canfield Oil Co.	$100	...	149
do pfd.	100	103	...
Fred G. Clark.	10	12½	13
National Refining.	25	33	35
do pfd.	100	...	135
Paragon Refining.	25	19	20¾
do pfd.	N.P.	...	42½
do ctfs.	..	18	21

Absolute Burglar Protection

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First Public Offering of

SPECIAL "NATIONAL" CHESTS

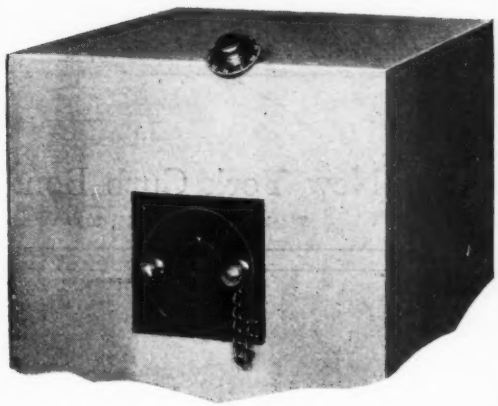
ONLY $37.50 Each

Discounts in Quantities
Express prepaid anywhere in U. S. A.

Ready to install in concrete block. Complete drawing and specification furnished for easy installation

Already installed by THE STANDARD OIL CO. OF INDIANA in nearly a Thousand of their Stations in Chicago, Milwaukee, Kansas City, St. Louis and Indianapolis.

Months were spent designing this chest to not only withstand any form of attack but to make repair cost after attack trivial. Before purchasing these chests The Standard Oil Co. submitted it to every form of destructive test in their laboratories. Numberless attacks have already been successfully resisted since installation.



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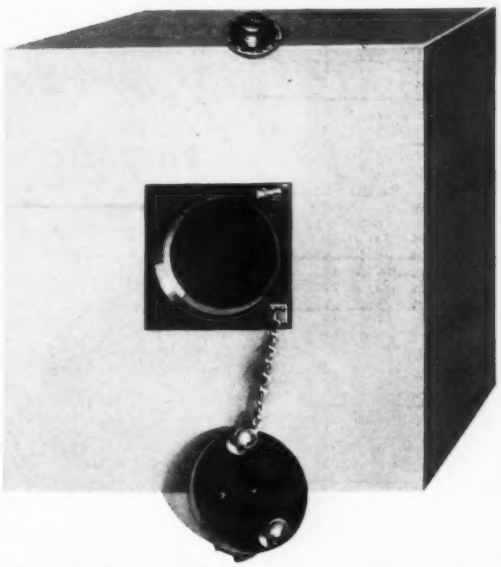
Every National product embodies the highest type construction and workmanship and we unhesitatingly accept orders with the understanding that if for any reason they do not please the purchaser in every way they may be returned with full credit and all expense to be paid by us.



Views of chest installed in concrete block, showing door closed with dial removed, and chest open ready for use.

Read These 6 Features Then Act

1. Absolute protection at small cost.
2. Removable dial discourages sledging.
3. Yale lock with special graduated spindle flush with door.
4. Immediate access after attack without services of expert.
5. Repair parts at trivial cost.
6. Eliminates the necessity of high priced insurance.

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WORKS—EAST 69th to 70th ST. AND PENNSYLVANIA R. R.

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☐ Enclosed pleased find my check for.....National Chests. It is understood that if they do not satisfy for any reason they may be returned with full credit.

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Name.....

Address.....

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Standard Oil Stocks on New York Curb

1928 High	1928 Low	1929 High	1929 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Aug. 17 Sales	First	High	Low	Last	Change
22⅜	14⅞	18¾	14¼	£4,126,460	£ 1	Anglo-American Oil	36c	June 5, 29	.....	.....	.....	.....	.....	.....
21¼	15	18	13	.....	....	do certificates	36c	June 5, 29	200	14¾	15	14¾	14¾	— 8
20½	14⅜	17	12¾	.....	L 1	do cts. non-voting	36c	June 5, 29	1,600	12¾	15	†12¾	13⅞	+ ⅞
5	1¼	2¾	1⅜	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	1,600	1¼	1⅞	1⅜	1⅞	+ 5/8
9¾	3¼	4⅛	1½	$10,000,000	$50	do pfd	.....	.....	300	1¾	2½	1¾	2½	+ ⅛
56	44½	46½	28¼	$1,000,000	25	Borne-Scrymser	‡$1S.A.	Apr. 15, 29	350	28¼	31¾	28¼	30	+ 1¾
76	58	74¼	58⅜	10,000,000	50	Buckeye Pipe Line	‡$1Q	June 15, 29	100	68⅞	68⅞	68⅞	68⅞	— ⅛
161	117¼	193⅜	140⅛	3,000,000	25	Chesebrough Mfg	‡$1Q	June 30, 29	200	184¾	185	184¾	185	+ ¼
23	16	29	16⅞	36,123,350	10	Continental Oil	.....	Dec. 15, 27	4,200	17⅛	22½	†16⅞	21⅞	+ 5⅝
17½	9½	11⅜	7⅜	.....	N.P.	Creole Petroleum	.....	.....	19,500	8½	10¼	8¼	10⅛	+ 2
82	67	95	62	1,500,000	50	Cumberland Pipe Line	$1Q	June 15, 29	50	95	*95	95	95	0
88	64⅜	70½	55½	5,000,000	100	Eureka Pipe Line	$1Q	Aug. 15, 29	200	55½	55½	†55½	55½	— 3½
13	4¼	6⅝	5	16,000,000	100	Galena Signal Oil	.....	June 30, 25	100	5⅛	5⅛	5⅛	5⅛	0
86	26	90	73½	4,000,000	100	do new pfd	....	June 30, 26	.....	....	....	....	....	.....
89¾	35	88	73½	2,000,000	100	do old pfd	....	June 30, 26	.....	....	....	....	....	.....
114¾	59¼	126⅞	89⅝	73,685 700	25	Humble Oil & Refining	‡30cQ	July 1, 29	12,500	117¼	126	117¼	125½	+ 8¼
290½	176½	340½	285	20,000,000	100	Illinois Pipe Line	$10S.A.	June 15, 29	1,800	307	307¾	305¾	307¾	+ 7½
104	56¾	119⅝	88	(sh) 6,605,442	N.P.	Imperial of Canada	12½cQ	June 1, 29	.....	.....	.....	.....	.....	.....
....	....	....	....	....	....	do new	.....	.....	9,800	28⅞	34⅜	28½	34	+ 5¼
91⅞	74⅝	106½	81¼	$5,000,000	$50	Indiana Pipe Line	‡$1Q	Aug. 15, 29	.....	.....	.....	.....	.....	.....
....	....	....	....	....	....	do new	.....	.....	4,900	27½	29⅞	27½	29⅞	+ 1⅞
55	35	65½	46⅛	(sh) 7,123,544	N.P.	International Petroleum	12½c	June 25, 29	.....	.....	.....	.....	.....	.....
....	....	....	....	....	....	do new	.....	.....	10,400	24¾	28⅛	24⅜	27⅞	+ 3⅜
32⅜	19⅜	25⅞	21⅜	$6,363,350	12.50	National Transit Co	25cQ	June 15, 29	300	22	22½	22	22½	+ ¼
75	38½	85	72	5,000,000	100	New York Transit	....	July 15, 26	.....	....	....	....	....	.....
....	....	....	....	....	....	do new	....	.....	.....	....	....	....	....	.....
69	56½	63	52	2,000,000	50	Northern Pipe Line	$2S.A.	July 1, 29	.....	.....	.....	.....	.....	.....
83½	58½	79⅞	64⅛	60,000,000	25	Ohio Oil Co	50cQ	June 15, 29	900	66⅞	*79⅞	66¾	75	+ 6¼
84	28	44½	23⅜	10,000,000	25	Penn Mex. Fuel	75c	Dec. 16, 28	200	31½	34	31½	34	+ 1
220	167	50	36⅝	4,000,000	25	Solar Refining	$1.25S.A.	June 20, 29	100	37⅞	39¾	37⅞	39¾	+ 1⅞
19	12	22½	13	1,000,000	10	Southern Pipe Line	$1	Mar. 1, 29	200	21⅛	21⅜	21	21	— ¼
71⅞	36¾	60¼	40⅜	30,000,000	25	South Penn Oil	50cQ	June 30, 29	2,100	47⅞	53	47⅞	53	+ 5
102	70	70	62¾	1,750,000	50	South West Pa. Pipe Lines	$1	July 1, 29	.....	.....	.....	.....	.....	.....
95⅞	70⅞	103¼	51½	348,175,069	25	S. O. Indiana	62½cQ	June 15, 29	108,400	53⅛	58½	53	58	+ 5
27¾	15	26	18	8,000,000	25	S. O. Kansas	.....	June 16, 24	10,200	21⅝	*26	21⅝	24	+ 2
49	44	45¼	35⅛	25,654,516	10	S. O. Kentucky new	40cQ	June 30, 29	13,300	35⅞	38½	35⅞	38½	+ 2⅝
54⅝	39⅞	50¼	45½	4,649,225	25	S. O. Nebraska	‡62½cQ	June 20, 29	300	49⅜	49⅜	48⅞	49⅜	+ ⅜
134	71	129	110¼	14,000,000	25	S. O. Ohio	62½cQ	July 1, 29	300	117	127¾	117	127¾	+10¾
125	116	124½	113½	7,000,000	100	do pfd	$1.75Q	June 1, 29	140	113½	116¾	†113½	115	— 1
23½	16	18	14	861,466	25	Swan Finch Co	30c	Jan. 15, 29	100	16	16	16	16	0
111	72	133¾	105½	126,154,000	25	Vacuum Oil	$1Q	June 20, 29	5,600	117½	125½	116⅛	125½	+ 8½

*New High †New Low ‡Also Extras

Independent Oils on New York Curb

1928 High	1928 Low	1929 High	1929 Low	Par Value	Stocks	Transactions Week Ended Aug. 17 Sales	First	High	Low	Last	Change
1½	.53	.72	.375	$ 5	Amer. Cons. Oilfields	9,700	3/8	7/16	5/16	3/8	0
9½	3⅛	8⅝	3½	N.P.	Amer. Maracaibo	2,100	3⅝	4⅜	3½	4⅜	+ ⅞
4½	2¼	5	1⅞	$ 10	Argo Oil	900	2	2	1⅞	2	+ ⅛
3¾	3⅜	17⅛	3¾	N.P.	Arkansas Nat. Gas	42,500	15½	15½	15⅛	16½	— 1⅛
....	....	17⅜	6¾	N.P.	do A	58,400	15⅝	16⅜	15⅛	16⅜	+ 1¼
....	....	9	7⅞	10	do pfd	400	8⅛	8⅛	8⅛	8⅛	0
55	32¾	62	50	N.P.	British American Oil	.....	.....	.....	.....	.....	.....
23⅞	3¾	4⅞	2⅝	25c	Carib Syndicate	2,400	3¾	3¾	3¼	3¾	+ ¼
....	....	48½	27¾	N.P.	Cities Service new	167,500	46	48¼	46	48¼	+ 2¼
103½	94½	98½	88⅝	100	do pfd	1,200	93⅞	94⅛	93⅝	94⅛	+ ¼
9⅝	8⅞	9¼	8⅞	10	do pref. B	200	9	9	9	9⅛	+ ⅛
97	88½	96	90	100	do pref. BB	100	90¾	90¾	90¾	90¾	— 1¼
2¼	1	1½	⅝	1	Colombia Syndicate	1,800	⅞	1	¾	¾	— ¼
17⅝	9¾	15	6	N.P.	Colon Oil	1,500	7¾	8	7½	8	+ ⅜
8⅞	6¼	11⅛	4⅞	10	Consolidated Royal	600	5⅜	6¼	5⅜	6¼	— ⅜
....	....	96⅞	45	N.P.	Cosden Oil Co	3,500	89	94	87	94	+ 4¾
....	....	80	71	....	do pfd	200	74	74	74	74	0
3¼	.76	2½	1⅜	N.P.	Crown Central	4,300	1⅜	2	1⅜	1½	+ ⅛
15	6¾	11¾	8	N.P.	Crystal Oil	.....	.....	.....	.....	.....	.....
50	48	51⅛	51⅛	$100	do pfd	.....	.....	.....	.....	.....	.....
33⅛	8⅛	26	12	N.P.	Darby Petroleum	500	13⅛	13⅜	†12	13⅜	+ ⅜
2⅞	1	10⅞	2	N.P.	Derby Oil & Refining	1,500	7¼	9⅛	7	8⅜	+ 1¾
21⅛	7½	44	20⅞	N.P.	do pfd	.....	.....	.....	.....	.....	.....
165	101⅛	207	142⅛	$25	Gulf Oil Corp	6,800	188	*207	188	204⅛	+ 6¼
7½	5⅝	7½	3⅝	5	Homaokla Oil	2,800	4⅛	4⅛	3⅞	4	— ⅜
3⅜	1	2⅞	1⅜	10	Intercontinental Pet	7,800	1¼	1⅜	†1⅛	1⅜	+ ⅛
3	¼	3⅜	1½	N.P.	Kirby Petroleum	1,800	2	2¼	2	2¼	0
9⅜	5⅛	6⅛	2⅞	N.P.	Leonard Oil & Dev	2,900	3¾	4½	3⅝	4	0
43⅜	20	38⅞	24¾	N.P.	Lion Oil & Refg	2,800	27⅝	35	27⅝	34½	+ 4½
69⅛	48⅛	87	67	$25	Lone Star Gas	.....	.....	.....	.....	.....	.....
....	....	44	32¼	....	do new	6,900	42¾	43⅜	42	42	+ ½
1⅞	.50	1¼	⅜	1	Magdalena Syndicate	1,400	3/8	1/16	3/8	7/16	0
48½	32	38½	21¼	N.P.	Margay Oil	.....	.....	.....	.....	.....	.....
8	2¾	6⅜	3	N.P.	Mexico-Ohio Oil	.....	.....	.....	.....	.....	.....
....	....	42	15⅞	N.P.	Missouri-Kan. P. L	3,400	33⅞	34	32¼	32¾	— ⅛
1¾	.76	1½	⅞	1	Mountain & Gulf	400	⅞	⅞	⅞	⅞	— 1/16
28⅛	19½	22⅞	11⅛	10	Mountain Producers	5,400	11⅛	12½	11⅛	12½	+ 1¼
....	....	43⅞	24¾	N.P.	Nat. Fuel Gas (new)	2,300	40⅞	41	36¾	38½	+ ½
5⅝	4¼	5	3	5	New Bradford	600	3¼	3¼	3	3⅛	+ ⅛
5½	3	3½	3	10	New England Fuel	.....	.....	.....	.....	.....	.....
11⅞	7⅛	9⅜	5½	1	New Mex. & Ariz	.....	.....	.....	.....	.....	.....
15⅛	11½	24½	16	25	New York Petrol	400	18¾	19⅞	19⅛	19⅞	+ 2
13¼	8⅜	18½	8¾	N.P.	North Cent. Texas	700	15⅞	16⅝	15⅛	16⅝	+ ⅜
....	....	19¼	12½	N.P.	Oil Stock, Ltd. A	200	13¼	15¼	13¼	15¼	+ 2¼
....	....	18¾	14⅛	N.P.	do B	100	14	15¾	14⅜	15¾	+ 1⅞
26¼	20	23¼	14½	N.P.	Pacific Western Oil	200	15⅛	16	15	16	+ 1
6	2¼	3½	1	N.P.	Pandem	200	1¼	1⅜	1⅝	1¼	+ 1/16
15⅜	8½	10¼	5½	N.P.	Pantapec	800	5⅞	5⅞	†5½	5½	— ⅜
20	10⅜	25½	22½	$25	Paragon Refg. B. ctfs.	.....	.....	.....	.....	.....	.....
7¾	4⅜	7⅜	4⅜	$10	Pennok Oil	.....	.....	.....	.....	.....	.....
....	....	34½	25½	N.P.	Petroleum Corp	2,800	25¾	29⅛	25⅝	29	+ 3¼
5⅜	3⅛	....	....	$ 5	Pittsburgh Oil & Gas	.....	.....	.....	.....	.....	.....
31⅜	26½	30	22	N.P.	Plymouth Oil	300	24⅛	24⅛	22¼	23½	+ ⅛
18	8	16	10½	25	Red Bank Oil	200	10½	10½	†10½	10½	— ½
13	4⅛	8¼	4½	N.P.	Reiter-Foster	200	5⅛	5¼	4⅞	5	+ ⅛
31½	23¼	25½	23⅞	$25	Richfield pfd	100	25	25	25	25	+ ¼
....	....	29	23	....	Root Refining pfd	200	25	25¾	25	25½	+ 1
12	4⅝	11	5	N.P.	Ryan Consolidated	600	5¾	6	†5	5⅞	+ ⅛
7¼	5½	5⅞	2	$10	Salt Creek Cons	700	2	2⅝	2	2¼	+ ⅛
35	23¼	25⅞	13	10	Salt Creek Prod	1,900	13	15	†13	14⅝	+ 1½
3½	1	2½	½	5	Savoy Oil	200	½	½	†½	½	0
40	27	33⅛	32	25	Shreveport El Dorado	.....	.....	.....	.....	.....	.....
....	....	24	14½	N.P.	Southland Royalty	1,000	15	15¼	†14½	15	— ⅛
....	....	23	12⅝	N.P.	Texon Oil & Land new	400	13⅜	14½	13¼	14⅛	+ 1
22⅞	13	16⅞	11⅜	$10	Tidal Osage	.....	.....	.....	.....	.....	.....
21¼	13⅜	16½	10⅛	10	do not-voting	.....	.....	.....	.....	.....	.....
93¾	75	155	80	100	Transcontinental pfd	600	146	*155	146	153	+ 6⅞
74¼	18	71½	66	10	Venezuela-Mexico	.....	.....	.....	.....	.....	.....
9⅛	4¾	6½	3	5	Venezuelan Petrol	1,200	3⅛	3⅞	3	3½	+ ⅛
8¼	4⅞	9¼	4⅛	1	Woodley Petroleum	100	4¼	4¼	4¼	4¼	0
⅝	⅛	5⅜	1	25	Y Oil & Gas	100	1¼	1¼	1¼	1¼	— ⅛

*New High †New Low

New York Curb Bonds

Week Ending Aug. 16, 1929

	High	Low	Last	Change
Beacon Oil 6s '36	120	116⅛	120	—3
Cities Serv. 5s '66	87¼	83	86	+4¾
Cities Serv. G. 5½s '42	92¾	86⅞	87¾	+ ¼
Cities Serv. G. P. 6s '43	93	92¾	92¾	0
Cont. Oil 5⅛s '37	94	94	94	+1
Empire O & R 5½s '42	87⅞	86¾	87⅜	+ ⅜
Gulf Oil 5s '37	98¼	97¾	98	— ⅛
Gulf Oil 5s '47	100	99½	99⅞	+ ¼
Independent Oil 6s '39	114⅝	104	113	+9
Richfield Oil 6s '44	100	99¾	100	+ ¼
Sun Oil 5½s '39	100	99¼	99¼	— ¾

New York Bonds

Week Ending Aug. 16, 1929

	High	Low	Last	Change
Assoc. Oil gold 6s	103	103	103	+1
Atlantic Refg. deb. 5s	101	100	100½	— ⅜
Cal. Pet. 5s	95½	92½	95⅜	+2⅜
Cal. Pet. 5½s	98	96½	98	0
General Asphalt 6s	111¾	106	109	+4
General Pet. 5s	100½	100⅛	100⅛	— ⅞
Humble Oil & Refg. 5s	100	99⅝	99¾	— ⅛
Humble Oil & Refg. 5½s	101	100⅝	100⅞	0
Pan Amer. Pet. 6s	98½	97	98	+ ¼
Pan Amer. Pet. 6s	108½	107	108	+1⅜
Phillips Pet. 5½s	89½	88	89¼	+1¼
Pierce Oil deb. 8s	105½	105½	105½	0
Pure Oil 5½s	98	97¼	97¼	— ⅝
Shell Union Oil 5s	96⅛	94	95	0
Sinclair Con. Oil 7s	102	101	101½	+ ⅜
Sinclair Con. Oil 6½s	100	99	99	—1
Sinclair Con. Oil 6s D	98¾	98⅛	98⅜	+ ¼
Sinclair Oil Crude 5½s	96	95¼	96	+ ¾
Sinclair Pipeline	93⅝	92	93⅜	— ⅛
Skelly Oil 5½s	91	90	90½	+ ½
S. O. N. Y. 4½s	94½	94	94¼	— ¼
S. O. N. J. 5½s	102	101	101½	— ¼
Union Oil of Calif. 6s A	105½	105¼	105	— ¼
Union Oil of Calif. 5s C	96	96	96	0
White Eagle Oil 5½s	101½	100¾	101½	+1½